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8 January 1981

Worldwide Report

EPIDEMIOLOGY

No. 212



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AUSTRALIA

GOVERNMENT INQUIRY SCORES OVERALL HEALTH SYSTEM

Jamison Report

Melbourne THE AGE in English 1 Nov 80 p 5

[Article by Stephen Mills: "Health Care System 'Inefficient'"]

[Text] Canberra--Members of a Government inquiry into Australia's health system have criticised its funding management, costs, functions and economic and philosophic basis.

The three members of the Jamison inquiry into the efficiency and administration of hospitals said the system wasted money. One of its recommendations seems certain to be to make doctors in hospitals more accountable for costs.

Addressing the Australian Hospitals Association's 1980 conference, the chairman of the inquiry Mr Jim Jamison, said hospital funding should encourage efficiency. Money should not be spent just because it was available.

State and Federal Governments provided public hospitals with about \$3000 million in 1979-80. This was 40 per cent of all Federal health funds and 70 per cent of State funds.

Mr Jamieson is a former chairman of an accounting firm.

Dr John Yeatman, a member of the inquiry, said the method of distributing Federal funds was not logical. Hospital managers had to prepare bids for money in a task "not merely incapable of satisfactory completion, but daunting, frustrating and totally without meaning or purpose."

The third member of the inquiry, Mr Charles De Boos, criticised hospital annual reports, which he claimed did not reveal whether hospitals got value for taxpayers' money.

He doubted that the traditional hospital management structure was efficient. "I have heard of hospitals where the matron was not on speaking terms with the manager, and where the medical superintendent denied any responsibility for the hospital's operations outside his strictly defined brief, and where the board was not interested in day-to-day affairs," he said.

"Is it surprising that some hospitals appear neither efficient or effective?
Is it surprising that costs sometimes seem to be out of control?"

The Jamison report, due to be handed to the Government on 31 December, is likely to provide the basis for any Government changes to health care institutions in Australia--and possibly to the health insurance system.

None of the commissioners referred specifically to recommendations they would make in their report. Instead they presented the range of options they were considering, and concentrated on sweeping criticisms of existing arrangements.

Mr Jamison said evidence presented to the commission showed that "a great deal is wrong" with the delivery of health care services: the way it is funded and managed, its costs, functions, achievements and even its philosophical and economic bases. [as published]

The commission had been told that the whole system of hospital funding inefficiency, he said. [as published]

Legislation prevented the imposition of compulsory insurance without a change of Government policy. "We must be aware of this fact when considering the evidence of those who have suggested compulsory insurance. On the other hand we have had it put very strongly to us that there should be an incentive to encourage voluntary insurance," he said.

Mr Yeatman said that one key problem was the annual "bids" by hospitals for Government money. Dr Yeatman said these were made on the basis not of needs but of spending in the previous year. The system meant that hospital managers did not have to consider whether the services they were providing were necessary or were being provided as efficiently as possible, he said.

All the solutions suggested to the commission by hospitals involved giving more responsibility to hospital managements rather than governments. But, Dr Yeatman said, there were doubts that managements were equipped for the extra duties.

Funds Shortage

Canberra THE WEEKEND AUSTRALIAN in English 1-2 Nov 80 p 5

[Article by Nicholas Rothwell: "Fund Freeze Threatens Health Care"]

[Text]

HEALTH care standards are likely to suffer soon because hospitals are short of money, an inquiry was told yesterday.

The president of the Australian Hospitals Association, Mr S. K. Steele, also said the increasing number of elderly people in the community is imposing strains on the medical system.

He warned the Commission of Inquiry on the Efficiency and Administration of Hospitals that the Treasury's continued freeze on funds would soon interfere with standards of care and the provision of a range of medical services.

The commission itself had concluded that 86 per cent of the increase in Australia's total health bill in the past decade was caused

by higher prices. This disproved any suggestion that health costs were "out of control".

Mr Steele said it was risky to emphasise increases in the proportion of health expenditure to the gross domestic product.

The percentage depended not only on the rate at which health costs changed but also on the movement of GDP.

DECEPTIVE

The annual rate of increase had fallen from 20 to 12 per cent in the past five years, which made such figures deceptive.

Hospitals were labor-intensive with staff on call 24 hours a day, making costs rise faster in hospitals than in the capital-intensive industries which determine increases in GDP.

In the past 12 years the amount spent on health had risen by only 4 per cent in real terms, allowing for population growth and changing prices.

"Health care costs have not been as uncontrolled and extravagant as some people have implied," Mr Steele said.

There was now scope to improve financial and organisational efficiency "but we have yet to see it proved that the hospital industry is less efficient than any other large-scale enterprise," he said.

Hospitals were susceptible to political influence which affected the services provided to the community and the support hospitals gave the community as employers.

"If standards are to be maintained larger amounts of money will have to be made available."

Mr Steele predicted that health care needs would become acute as the population aged and became less healthy.

Many hospitals were already in desperate need of new equipment.

An increase was essential in the real income available to finance hospital services.

"We are not advocating open-ended funding arrangements but still wish to see money allocated on a realistic assessment of demand and standards of service to patients," Mr Steele said.

He predicted there would be heavy competition between social welfare, unemployment relief and health care for funds.

Mr Steele said the expression "zero real growth" appealed to Treasury officials but had no place in health care because it was misleading.

Zero real growth implied that federal and State governments would not allow hospitals to spend more in real terms in any year than in the previous 12 months.

Hospital Evaluations

Perth THE WEST AUSTRALIAN in English 1 Nov 80 p 16

[Text] Canberra: The Federal Government was developing a computerised system to analyse and compare the costs and performance of Australian hospitals, the Health Minister, Mr MacKellar, said yesterday.

He said that the system should produce considerable cost savings and be of real benefit to hospitals and the State and Federal Governments.

But he denied that it would effectively be a central police force to check on hospital spending.

"We are trying to assist hospitals work out ways in which they can more effectively deliver high-quality health care to their patients," Mr MacKellar said.

"Hospital care and institutional care generally is a very expensive item. What we want to see is a method by which high-quality health care delivery can be made available at the most cost-effective price."

Mr MacKellar was speaking while opening the Australian Hospitals Association's annual congress in Canberra.

CSO: 5400

AUSTRALIA

TOURISTS WARNED ON IMPORTING ANIMAL, PLANT DISEASES

Perth THE WEST AUSTRALIAN in English 1 Nov 80 p 34

[Text] The popularity of overseas holidays by Australians has prompted a campaign to keep Australia free of exotic animal and plant diseases.

It carries the slogan "Declare it for Australia" and encourages Australians Travelling overseas to be careful about what they bring back into the country.

Items such as food (sausages, cheese, fruit) animals and birds, urics, untanned leather goods, plants and seeds are banned because they could be carriers of viruses and insect pests which could threaten Australian crops and livestock.

Conservationist Harry Butler supports the campaign and says that even the most innocent looking souvenirs or foods could be a source of disease.

This programme is sponsored by the Commonwealth Health Department quarantine service.

The campaign warns of the "catastrophic economic effects" of foot and mouth disease if it was introduced into Australia.

Other dangerous diseases which could be introduced were rabies, virulent Newcastle disease (which is a risk to native birds and poultry), swine fever (food-stuffs and animal products), citrus greening, potato cyst nematode, sugar-cane smut, fireblight (orchards), timber pests and fruit flies.

The department said that more than one million people would leave Australia for overseas this year and about 800,000 would come to Australia for the first time from other countries.

CSO: 5400

AUSTRALIA

MALARIA CASES IN COUNTRY RISING SHARPLY

Sydney THE SYDNEY MORNING HERALD in English 8 Nov 80 p 2

[Article by Gregory Turnbull]

[Text] A worldwide upsurge in malaria has produced a disturbing increase in the incidence of the disease in Australia.

The number of cases reported this year is expected to pass 500, twice as many as in 1975.

Malaria is fully imported. Almost all the cases involve travellers returning from Papua New Guinea and other parts of Asia and Africa.

A large part of Australia's north, above a line roughly from Townsville to Broome, is a malaria receptive area. It has a suitable climate and mosquito population to support the malaria parasites.

According to Professor Robert Black, a specialist in tropical diseases at the Commonwealth Institute of Health in Sydney, Australia's record in the treatment and control of malaria has been remarkably good, but the ingredients for an epidemic remain in the north.

A concern to Australian health authorities is the emergence in New Guinea since the mid-1970s of a new strain of one of the malaria parasites, *Plasmodium falciparum*, which is resistant to the usual antimalaria drug chloroquine.

Falciparum malaria can be deadly if not treated in time. The more common form, *Plasmodium vivax*, does not threaten the life of an otherwise healthy person.

Many of the people who return with malaria will have been taking chloroquine, and will believe the drug has failed or they have contracted a resistant strain.

In fact, most will have *vivax* malaria. The chloroquine keeps the parasites out of their blood while they take it, but persisting forms of parasites in the liver flare up when they stop.

Chloroquine is no guarantee against even *vivax* malaria, only against the symptoms. A stronger drug, primaquine, is needed to eliminate the infection and prevent relapses.

About 250,000 people a year enter Australia after visiting or residing in a malarious country, according to Professor Black.

"A doctor should routinely ask all his patients about recent travel, and if he gets a positive answer he should switch on his list of additional possible diseases, and malaria should be on the top of the list," Professor Black said.

"If he misses the diagnosis of falciparum, that patient is going to be lucky to survive.

"The symptoms include vomiting, headache and shivering, and anyone with those signs after travel ought to go to a doctor and raise the possibility of malaria."

On 1979 figures, the Australians most likely to catch malaria are males aged between 21 and 30 years.

People at special risk include many young people who prefer to visit the rural areas of tropical countries and stay in villages rather than city hotels.

Such travellers are advised to seek reliable information about malaria.

For those going to New Guinea, the drugs developed to counter the chloroquine-resistant strains are a must.

They are marketed as Fansidar or Maloprim, but they are not recommended for pregnant women.

Pregnant women may use chloroquine, but if they go to New Guinea or other countries with chloroquine-resistant strains they should be aware that they do not have full protection, and that malaria may induce a miscarriage.

Cases of Malaria reported in Australia

1969	166	1975	255
1970	199	1976	264
1971	220	1977	291
1972	170	1978	323
1973	194	1979	474
1974	201	1980	483 (to October 17)

CSO: 5400

AUSTRALIA

BRIEFS

WATER CLEAN-UP--There will be no more rusty nappies at the Gap. The Brisbane City Council tomorrow is expected to approve spending of \$350,000 to improve the quality of water for the area. Council Opposition Leader and alderman for The Gap, Alderman Andrews, has campaigned strongly to have treatment of the water supply from Enoggera Dam upgraded. The high iron content in the water earlier this year had turned nappies hung to dry on clotheslines rusty overnight. Council works committee chairman, Alderman St Ledger, said yesterday the council would install a filtration plant at Enoggera Dam at a cost of \$350,000. Alderman Andrews said: "The claims by the Labor administration of a takeover of water supply are absolute garbage." [Text] [Brisbane THE COURIER-MAIL in English 3 Nov 80 p 24]

MANJIMUP SEWERS--Sewers: There are plans to spend about \$380,000 on the construction of reticulation sewers and associated works to extend Manjimup's sewerage scheme in two areas. The money consists chiefly of local authority borrowings. Work cannot begin till the funds become available. [Text] [Perth THE WEST AUSTRALIAN in English 5 Nov 80 p 52]

OUTDATED HOSPITAL--The Merredin district hospital is so run down that wheat-belt people are travelling to Perth and out-of-the way hospitals for treatment...but its fate may be decided by the Minister for Health within the next few days. The president of the hospital's auxiliary, Mr Harry Snell, said this yesterday. He said that a new hospital was needed because the present one was beyond repair. Mr Snell said that the hospital, meant to serve five to six thousand people, was built in the 1930s and was now 50 years out of date. "Things are not worth renovating," he said. "It needs pulling down and the region ought to get a new hospital as soon as possible. Merredin is the centre of the wheatbelt and deserves better than this. Years ago it was suggested that a regional hospital should be built at Merredin and plans have been cancelled several times. A new hospital is long overdue and better facilities would encourage specialists to include Merredin on regional visits." [Excerpts] [Perth THE WEST AUSTRALIAN in English 5 Nov 80 p 44]

SALMONELLA IN WATER--Half the people in the east Pilbara mining centre of Marble Bar in Western Australia may have been poisoned by salmonella bacteria in the town's water supply. The local nursing sister, Mrs Jill Hutchinson, has treated about half the 400 residents recently for vomiting and diarrhoea--symptoms similar to those of salmonella poisoning. Now 12 of the cases have been confirmed as salmonella following tests done in Port Hedland. All the victims are children staying

at a hostel attached to Marble Bar's primary school. Tests have not been done on the rest of those affected. Initially, it was thought a 24-hour virus had hit the area. But the town's water supply is now suspected because of the speed with which the disease spread. The shire council has called in the Public Works Department, which has started cleaning and rechlorinating the town's reservoir. Samples of water have been sent to Perth for analysis. Mrs Hutchinson said the main problem with salmonella was that the victims became carriers of the disease after they recovered from the symptoms. [Text] [Canberra THE AUSTRALIAN in English 6 Nov 80 p 3]

NEW WAGGA HOSPITAL--A \$30 million hospital is to be built at Wagga, the Minister for Health, Mr Stewart, announced yesterday. Mr Stewart, in Wagga for today's country Cabinet meeting, said that planned redevelopment of the existing hospital would make further expansion impossible. The new 250-bed hospital will be built on a 19.5 hectare site on Crown land on the fringe of the city. Site work is expected to begin early next year. [Text] [Sydney THE SYDNEY MORNING HERALD in English 6 Nov 80 p 9]

CANNING PLANT CLOSURE--The Albany factory of Hunts Foods Pty Ltd, where tins of defective fish were canned, was temporarily closed yesterday. The Minister for Health, Mr Young, said that production would stop while the fish canning process was examined. Inspections last week found some areas of anxiety in the cooling process. The decision to close the factory was made after talks between company representatives, senior officers of the Department of Health and medical services. Mr Young said that stringent quality controls applied by the company had shown no abnormalities. But the cooling process would be examined by the company and departmental health surveyors to ensure that it was sterile. Monitoring processes also would be introduced. Hunts had produced more than five million cans in the past 18 months and fewer than 50 had been defective. [Excerpts] [Perth THE WEST AUSTRALIAN in English 6 Nov 80 p 5]

RESERVOIR PROTECTION--Measures taken against the spread of amoebic meningitis to country water supplies included speeding up the programme to provide roofs for as many open storages as possible, the Minister for Lands, Mr Wordsworth, said yesterday. Storage facilities that could not be roofed for practical reasons would be chlorinated, he said. During the past financial year roofs had been built at the Sawyers Valley, Northan and Worsley service reservoirs and chlorination equipment had been installed at Cunderdin. There were three minor installations near Merredin. Mr Wordsworth was replying in the Legislative Council to Mr J. M. Brown (Lab., South-East), on behalf of the Minister for Water Resources, Mr Mensaros. [Text] [Perth THE WEST AUSTRALIAN in English 6 Nov 80 p 33]

HOSPITAL IMPROVEMENTS--The Queensland Government will spend a record \$300 million on improving its hospitals and other health care buildings over the next two years. A report prepared for the State Minister for Health, Sir William Knox, and released yesterday said the money would be spent on expansion, redevelopment, rebuilding, replacement, and modernisation of facilities throughout the State. Sir William said new hospitals costing about \$28 million were already being built at Dysart, Cairns, Biloela, and Wynnum. Others, to cost more than \$15 million, were planned for Cooktown, Cunnamulla, Boulia, Goondiwindi, Keperra, Mitchell, and Mugindi. [Text] [Canberra THE AUSTRALIAN in English 11 Nov 80 p 2]

CHILE

BRIEFS

TWO DIE OF MENINGITIS—Antofagasta--Two children have died of meningitis in this city's hospital. Although it was stated that these are isolated cases, the directorate of the Regional Hospital took all the necessary epidemiological control measures, both among family members and hospital center personnel who had come in contact with the two children. The first case involved Cristian Soto Soto, a 6-month old baby, who died on Tuesday from purulent meningitis. Yesterday, Andres Bariles, 2 1/2, died of meningococcal meningitis, an infectious disease. [Text] [Santiago LA NACION in Spanish 14 Nov 80 p 13-A] 8143

CSO: 5400

GHANA

BRIEFS

CHOLERA CASES REPORTED--Accra, 16 Dec (AFP)--Nine people have died of cholera and many others have been hospitalized in Ghana's eastern region, 100 kms (60 miles) east of Accra, it was reported here today. A delegation that went to the scene reported that the epidemic broke out about 10 days ago and that the situation had become very alarming. More people were expected to die, the report said, despite the efforts of a medical team sent in. Anti-cholera medicines were lacking in the region's hospitals, the report said. The Ghanaian press said today that cholera also had been reported in the central region, 100 kms west of Accra. [Text] [AB161801 Paris AFP in English 1800 GMT 16 Dec 80]

CSO: 5400

TUBERCULOSIS CENTER DIRECTOR RECEIVES AWARD

Bombay THE TIMES OF INDIA in English 22 Nov 80 p 15

[Text] Bombay, November 21: A major breakthrough in the treatment of tuberculosis is on the cards by combining drugs that kill dividing and persisting bacteria said Dr S. P. Tripathy, director, TB Research Centre, Madras, here today. He was delivering the Wander-Tuberculosis Association of India oration, having received the Wander-TAI award for outstanding work in the cure of TB.

Dr Tripathy pointed out that there were about ten million TB cases in the country of which 2.5 million were infectious. He noted that conventional chemotherapy extended from over 12 to 18 months and produced a cure rate of 85 per cent and a relapse rate of 15 per cent. The prolonged intake of a certain drug led to lack of cooperation on the part of the patients when the symptoms started disappearing slowly, resulting in relapses, he said.

To combat this, combinations containing streptomycin, isoniazid, rifampicin and pyrazinamide proved almost 100 per cent effective and relapse rates fell to about two per cent. This short course chemotherapy, he noted, was expensive and could not be sustained owing to lack of finances. However, new regimens were now being tried out which without sacrificing efficacy would be less expensive.

Short-course chemotherapy had a number of advantages. There was less drug toxicity and early default from treatment was less hazardous to the patient. Also more effort could be concentrated on ensuring that patients continued to attend and actually continued to remain on their chemotherapy for the prescribed period, and routine follow-up after the end of chemotherapy could be abandoned.

The TB Research Centre in Madras holds trials and also collaborates with the World Health Organisation, British Medical Research Council, Indian Council of Medical Research and the government of Tamil Nadu. It has been the pioneer to demonstrate that ambulatory treatment in the cure of TB is effective and patients need not be treated in sanatoriums but can as well be treated at home. The revolutionary findings in short-course chemotherapy are also the work of the Research Centre, which undertook studies in various regions with various combinations of drugs.

According to Dr Tripathy research is being conducted in several institutions and the problem of relapse is being studied with the objective of evolving effective short-course regimens which can be applied in developing countries and in the national TB control programme.

FIGHT AGAINST MALARIA SAID TO LOSE GROUND

Calcutta THE SUNDAY STATESMAN in English 23 Nov 80 p 6

[Editorial: "Menace of Malaria"]

[Text] A significant increase in the incidence of malaria, which during the mid sixties had been almost brought under control, is causing growing concern to the World Health Organization and many national health authorities. The problem is said to be based largely on Kampuchea and its neighboring countries which have over the past few years experienced mass population shifts caused by political instability. Large-scale population movements not only cause the disease to spread to previously unaffected areas but can introduce into a region a new strain to which the local population has not built up resistance. Of particular concern is the spread of the new falciparum strain which attacks the brain and can prove fatal in the absence of prompt and effective treatment. The fact that an estimated 43 mosquito species seem to have developed resistance to insecticide sprays such as DDT and that a number of parasite strains, most notably falciparum, appear resistant to the normal chloroquine treatment has complicated the problem, which has spread to India through the north-eastern States.

Despite the fact that India's National Malaria Eradication Programme is the largest project of its kind in the world, with an annual allocation of Rs 75 crores which is about forty per cent of the Union Health Ministry's 1980-81 budget, the war against malaria in India seems to be losing ground after the successes of the sixties. Between 1960 and 1965, the incidence of the disease was brought down from 75 million to 100,000 cases. This was largely achieved by intensive DDT spraying programmes. The oil crisis of the early seventies caused a cut-back in the programmes. Furthermore, the carriers and parasite strains began to show new resistance. The result was that malaria cases rose to some six and a half million in 1976. Though the overall figure declined to under three million cases last year, the mortality rate has shown a marked increase, mainly due to the deadly falciparum strain. It is feared that the extensive floods earlier this year will lead to further spread of the disease.

The seriousness of the situation has raised questions about the effectiveness of the eradication programme in countering the malaria menace. It is being increasingly felt that sufficient attention has not been given to proper preventive measures. A WHO report reveals that of the 640 million Indians living in malaria-infested areas more than 30 per cent are totally unprotected by anti-vector

measures. Critics claim that the NMEP relies too heavily on insecticides which are not only costly but also, going by recent experience, of doubtful efficacy. The furore caused by the official admission a few months ago that the NMEP had spent several crores on "substandard" insecticides has raised further doubts.

Advocates of a new approach to combating malaria stress the need for environmental improvement and antilarval measures. Paddy fields are the main mosquito breeding grounds in rural areas, and the use of larvae destroying bacterial agents and fungal strains has been suggested. Other suggested measures include intermittent irrigation, drainage of waste water and the prevention of wet cultivation within half a kilometre of village. According to one estimate, a 10-year national programme of environmental improvement, which would cost the exchequer not more than Rs 15 crores a year, could make over two lakh villages free from malaria. New lines of research have also been initiated in the field of immunology in order to develop an effective anti-malaria vaccine. A major achievement is said to be development of a culture of chloroquine resistant parasites from which it may be possible to derive antigens which will aid the formation of malaria anti-bodies.

CSO: 5400

POTENCY OF POLIO VACCINE NOW IN USE QUESTIONED

Bombay THE TIMES OF INDIA in English 24 Nov 80 p 6

[Text]

NEW DELHI, November 23
(PTI).

DOUBTS about the potency of the polio vaccine used by hospitals and private doctors have once again been raised following the closure of the only polio vaccine testing laboratory (PTL) in Delhi.

PTL was set up in 1968 at the national institute of communicable diseases to keep a watch on the quality of imported vaccine and to test the safety of the vaccine made at Coimbatore.

Following reports of paralysis in immunised children in 1972 PTL had launched a massive campaign to test every batch of imported vaccine before release to the market.

The closure of PTL two years ago has raised doubts about the "quality of the vaccine" at present used in hospitals since vaccine samples are not currently tested for potency.

Health officials said PTL was closed as its director Dr. S. C. Arya, had quit. He was the only person trained in safety test of polio vaccine.

Dr. Arya told PTI that he resigned in the "public interest" as he was harassed and his staff was curtailed to an extent that reliable safety tests were not possible.

NEW LABORATORY

Health officials said that a new laboratory is being established in Kasauli for safety testing of polio vaccine and it would be ready soon.

Meanwhile the use of polio vaccine in the absence of a government laboratory for quality control has caused concern among the medical community, particularly at a time when the incidence of polio is on the rise.

Dr. Jacob John, a virologist at the Vellore medical hospital, said in a recent report to the British Medical

Journal that the potency of the vaccine he used in his studies was only about two per cent.

With the closure of PTL, it is not known if the polio vaccines imported from the USSR and Belgium are being tested for potency before release.

According to Dr. Arya, PTL used to draw samples from the batches in their arrival at the airport and clear them only after a potency test.

He said import of vaccine from Yugoslavia was stopped by PTL on the basis of potency tests. He doubted if such tests were done on the batches recently imported from Belgium.

At the time of closure, PTL had the second largest monkey colony and was to be designated by the World Health Organisation as a regional centre for the neurovirulence and potency testing of oral polio vaccine.

Neurovirulence test (that involves 60 monkeys and three weeks time) is the most critical test for safety of polio vaccine. Improper testing led to the death of 80 children in the US in the 1950s, Dr. Arya said.

With the closure of PTL, there is no national laboratory at present to test the safety of the vaccine being produced at the Haffkine institute.

It is learnt that India is now dependent on an Italian expert, supplied by the WHO, for safety testing of Haffkine vaccine and training scientists in neurovirulence testing.

Official sources said that the Haffkine vaccine will be tested independently by the Kasauli laboratory when it is ready.

While neurovirulence testing is done on vaccine during production, potency tests are required frequently on the vaccine stored in hospitals and clinics.

Experts said the vaccine loses potency when not stored in deep freeze. Health officials admitted that before its closure, PTL had regularly been drawing samples from 208 centres in the country for potency tests.

BRIEFS

VIRAL CONJUNCTIVITIS EPIDEMIC--Madras, Nov. 24. Viral conjunctivitis, a highly contagious eye infection, has broken out in an epidemic form in Madras. A sharp rise in the incidence of this painful eye disease was noticed a week after the recent torrential rains. Since then there has been a steady increase in the number of those with this eye ailment lining up at the Government hospitals and private clinics. According to Dr. E.T. Selvam, Superintendent of the Government Ophthalmic Hospital in Egmore, over 200 out of 500 persons attending the out-patient department of the hospital are found to have contracted the infection. "In view of the outbreak, we are now restricting the operations at the hospital. This is being done as a precautionary measure to avoid complications that may develop if the operated persons caught conjunctivitis", he said. In most of the patients with conjunctivitis this time doctors have observed secondary bacteriological infection. So, they feel, the contagion is possibly water borne. [Excerpt] [Madras THE HINDU in English 25 Nov 80 p 1]

CHOLERA DEATHS IN GUJRAT--New Delhi, Dec. 9: Sixty-five people have died in a gastro enteritis and cholera epidemic in the past five weeks in the western state of Gujrat, the Press Trust of India (PTI) reported yesterday. The famous Gir Sanctuary, the only habitat left of the Asiatic lion, has been closed to tourists following the outbreak. The state government said President Sanjiva Reddy will visit the worst hit Saurashtra region for three days next week.--Reuter. [1-xt] [Karachi BUSINESS RECORDER in English 10 Dec 80 p 3]

CSO: 5400

BRIEFS

HEMORRHAGIC FEVER IN CENTRAL KALIMANTAN--Twenty-two of the 240 persons reported to have contracted hemorrhagic fever died in Central Kalimantan Province. The disease reportedly struck the East Kotawaringin Regency, especially Pundu village, Cempaga Subdistrict, where 99 persons fell ill and 16 children died. In Papar Pujung village, Lahai Subdistrict, North Barito Regency, 55 persons fell ill with hemorrhagic fever, four of whom died, while 86 persons, two of whom died, contracted the disease in Lanjas village, Central Teweh Subdistrict, North Barito Regency. Dr Andriansyah Arifin, an official of the Central Kalimantan Health Service, recently told Antara that, in general, it was children between 1 and 10 years of age who contracted the disease, and there were many fatalities because of the people's delay in reporting the disease in the region struck by the epidemic. [Excerpt] [Jakarta HARIAN UMUM AB in Indonesian 22 Oct 80 p 5]

MEASLES IN CENTRAL KALIMANTAN--Sixteen children died of morbili (measles) which struck Pundu village, Cempaka Mulia Subdistrict, East Kotawaringin Regency, Central Kalimantan. The disease spread in August and September. A KOMPAS source in Sampit (the capital of East Kotawaringin Regency) said the local Health Service and other local agencies have taken steps to prevent the spread of the disease. Measles which struck the village in August was not reported immediately by either the kampung chief or the local residents. The village chief reported the disease to the doctor at the People's Health Center in Cempaka Mulia on 25 September only after many people were ill and 16 children had died of the disease. Since Pundu village is located far from Cempaka Mulia Subdistrict (approximately a 6-hour journey by klotok), the doctor and medical personnel arrived in the area on 27 September. Help could be offered, particularly to the children suffering from the disease, only since that time. Dr Yusuf Sukandar, chief of the East Kotawaringin Level II Health Service, and Dr Andriansyah Arifin, P3M (control and prevention of contagious diseases) chief, who also work in the field, said there were 94 cases of measles in Pundu village. Those still alive when assistance arrived were given intensive care. Touching on the number who died of the disease, the medical personnel gathered that victims suffering from measles also suffered complications, meaning that the children who died also had broncho-pneumonia coupled with malnutrition. [Excerpts] [Jakarta KOMPAS in Indonesian 30 Oct 80 p 12]

GASTROENTERITIS IN BOLAANG MONGONDOW--Gastroenteritis, which swept through several villages in Bintauna Subdistrict, Bolaang Mongondow Regency, these past 3 months, claimed 115 victims, of whom four died. According to Bolaang Mongondow Health Service information, the disease was caused by the prolonged dry season in the region. Symptoms of cholera, in addition to gastroenteritis, are appearing in several of the villages of the regency. [Excerpts] [Jakarta SINAR HARAPAN in Indonesian 21 Oct 80 p 3] 6804

INFECTIONS, MEASLES CAUSE HIGH RATE OF BLINDNESS

Salisbury THE HERALD in English 18 Dec 80 p 20

[Text]

SOME 60 000 Malawians suffer from some form of blindness, according to a recent Government survey. And more than 160 000 patients were treated for eye infections and blindness in all hospitals in the country in 1978.

With one of the highest incidences of blindness in the world, Malawi suffers a disproportionately large loss in human resources available for national development. Or does it?

The Council for the Handicapped administers an exceptional experimental scheme which involves some 50 blind farmers working on holdings in the heavily infected southern districts.

SUCCESSSES

They grow cotton, groundnuts, maize and tobacco, putting to use the same facilities available to sighted farmers. In some cases, these blind farmers have even outproduced their sighted counterparts!

Because of the successes of the programme, the council will be extending these services to help make more blind persons self reliant.

Blind women are trained at a community development college also in the south. With assistance from the Royal Commonwealth Society for the Blind, the Rotary Club and the Christian Service Committee, these handicapped girls and women are taught cottage crafts, cookery, child care, hygiene, agriculture and home management.

After their training they are given basic equipment to enable them to start on their own in their home areas under the supervision of the Community Development and Social Welfare staff who also assist them in the sale of their products.

A weaving factory situated in Blantyre district built with financial assistance from West Germany offers yet more employment opportunities to blind and other disabled persons.

The factory was opened by the President in June 1976 and according to a Ministry of Community Development and Social Welfare spokesman is "making tremendous contributions to the economy of the country and to the wellbeing of the handicapped."

CARPETS

Only 16 of the 69 employees at the factory are able-bodied. Items made at the factory include carpets, handbags and table mats. The establishment of the factory was a result of the council's intentions to find alternative possibilities for industrial employment for the handicapped.

Many of Malawi's unsighted are children. Malawi's Minister of Health, Mr L. C. Chaziya Phiri, told a recent regional conference on blindness in Malawi that many children under the age of five suffered loss of sight due to measles contracted in association with malnutrition.

Malnutrition in Malawi?
This was surprising news to most delegates since Malawi is not only self-sufficient in food but is a net exporter of food to other countries.

Mr Phiri told the conference drawn from the neighbouring states of Zambia, Zimbabwe, Botswana, Lesotho and Swaziland that malnutrition in Malawi stemmed from improper diet instead of insufficient diet.

In view of these findings, the Government has launched plans to revise the emphasis of the country's maternal and child health clinics to concentrate more on nutrition and disease prevention as well as a closer monitoring of children's growth and health indices.

In 1973, Malawi inaugurated the Maternal and Child Health Programme which organises and develops anti and post natal clinics throughout the country.

It has been found that

much of the blindness stems from untreated eye infections which are particularly prevalent in the south and along Malawi's extensive lake shoreline. This suggests that the unusually high incidence is perhaps due to water-borne diseases, possibly originating from Lake Malawi which runs almost the whole of Malawi's 700 km length.

HERBS

Researchers have also found that many cases of blindness originate from improper use of strong traditional herbs. While people are being encouraged to use available modern medical treatment for eye problems, observers note that traditional healers should also be approached directly.

Since a substantial amount of the indigenous population will likely continue to use them, the healers should be encouraged to either change their practices, or submit them to standardisation or some other method that would stem the danger.

The Royal Commonwealth Society for the Blind provides an ophthalmically equipped mobile eye unit with a medical officer which operates from a rural hospital in one of the heavily affected southern areas.

The medical officer gives on-the-spot treatment for simple infections while complicated cases are referred to specialists at the central hospital in Blantyre.

In addition, the conference agreed to establish a training centre for auxiliary eye-care personnel to meet the needs of Malawi and the other countries of the region. — APS.

VIRAL CONJUNCTIVITIS REPORTED ON EAST, WEST COASTS

Over 30 Cases Daily

Kuala Lumpur NEW SUNDAY TIMES in English 9 Nov 80 p 1

[Excerpt]

KUANTAN, Sat. — Viral conjunctivitis has hit Kuantan. The number of cases being treated at the hospital and private clinics here is on the increase.

The General Hospital's poly clinic and eye clinic treated about 70 cases of viral conjunctivitis over the past week — the same number the hospital handled for the whole of last month.

The State Medical

Director, Datuk Dr Dharam Singh, said: "We are now treating from 30 to 50 such cases daily."

Several private clinics also reported treating an increasing number of viral conjunctivitis cases over the past week.

Increase in Capital Area

Kuala Lumpur NEW STRAITS TIMES in English 10 Nov 80 p 7

[Excerpt]

KUALA LUMPUR, Sun. — Viral conjunctivitis has hit Kuala Lumpur and Petaling Jaya, and several private clinics have reported treating an increasing number of cases over the past week.

"Sore eyes," as it is commonly called, is reported to be spreading rapidly here.

A woman doctor in Lorong Ara Kiri Dua here said over the past week she had treated nearly 40 cases of viral conjunctivitis in both children and adults.

CSO: 5400

NIGERIA

BRIEFS

TSETSE FLY ERADICATION--The Federal Department of Pest Control Services has intensified its efforts towards the eradication of tse-tse flies in the country. To this end, the department has acquired a helicopter in addition to their fixed wing aircraft in Kaduna and are being programmed for a nation-wide spraying operation. Speaking in Jos, the director of the department, Dr. B.K. Maisa, said that their ground spraying programme would also continue. Dr. Maisa told the meeting that the fight against tse-tse flies was not only a local problem, but covered the whole continent. [Text] [Kaduna NEW NIGERIAN in English 22 Nov 80 p 11]

CSO: 5400

AFGHAN REFUGEES SURVEYED FOR TUBERCULOSIS

Karachi DAWN in English 13 Dec 80 p 8

[Text]

The survey work for early detection of tuberculosis among Afghan refugees in their camps has been started through mass miniature radiography (MMR).

This was stated in Karachi yesterday by Dr A. H. Saeed, Chairman, chest specialists panel "who is also secretary of the committee for Tuberculosis Control among Afghan refugees.

He said the Baluchistan Government is helping actively for providing medical facilities and has reserved 35 per cent of the beds at Fatima Jinnah Sanitorium, Quetta

for Afghan refugee patients needing hospitalisation.

For the Frontier Province Afghan refugees camps, the MMR plant has been donated by the Canadian association and it will be used shortly.

Dr Saeed further said a mobile X-ray van, has also been donated by the Canadian association. The Columbia Lung Association also from Canada made a donation of trailer truck.

He said full use of these equipment will be made for the treatment of the Afghan refugees.—
PPI

CSO: 5400

BRIEFS

GASTRO-ENTERITIS IN KARACHI--The KMC has reported gastro-enteritis cases in the city and has advised citizens to take precautionary measures including use of boiled drinking water. The KMC Health Department has warned public not to use sub-soil water, ice candies, rotten or over-ripe, unripe and cut-fruits and over-ripe vegetables. Gastro-enteritis patients, mostly children, have been taken to private doctors also but no death was reported so far. Three leading hospitals of the city last night said gastro-enteritis cases were referred to the hospitals but none in critical stage. [Text] [Karachi DAWN in English 3 Dec 80 p 8]

PUNJAB VACCINATION CENTERS--The Punjab Health Department will establish 120 centres during this year for immunizing children from six communicable diseases of Measles, Diphtheria, Pertusis, Tetanus, Poliomyelitis, Tuberculosis and Diarrheas. These centres will cover 120 towns having population of 20,000 or above. Necessary training is being imparted to the vaccination staff of Lahore, Sheikhpura and Kasur Districts from November this year. It would be recalled that Government started the Expanded Programme on Immunisation from July 1979 and 119 centres are functioning in 31 towns with population of 50,000 or above. According to the statistics, there are 17.36 lakh of cases and out of these 1.37 lakh deaths occur among children in Punjab due to these communicable diseases. [Text] [Lahore THE PAKISTAN TIMES in English 8 Dec 80 p 3]

CSO: 5400

UNITED ARAB EMIRATES

BRIEFS

TEN HEPATITIS CASES--Dubai, 4 Dec (ITTihad)--The Kuwait hospital here has been treating about 10 cases of jaundice among children during the past five days. The paediatric consultant at the hospital Dr Mohmoud Fatahahah warned of the possible spread of the disease among children in Dubai and urged families to take general hygiene measures in regard to food and drink. [Text] [Abu Dhabi EMIRATES NEWS in English 5 Dec 80 p 2]

CSO: 5400

GIA LAI-KON TUM REPORTS PROGRESS IN ELIMINATING MALARIA

Hanoi NHAN DAN in Vietnamese 10 Nov 80 p 3

[Article by Nguyen The Huynh: "Gia Lai-Kon Tum Strives to Eliminate Malaria"]

[Text] Gia Lai-Kon Tum, situated west of the Truong Son Mountains and lying at an altitude of 200 to 1500 meters, has an area of 24,000 square kilometers, 80 percent of which is forested, and a population of nearly 600,000. Some 64 percent of the population are members of ethnic minority groups (Jarai, Bhanar, Sedang, etc.), who in the past lived nomad lives, who have many backward customs and whose deficient material lives adversely affect their health. Since the liberation the province has received 50,00 people from the provinces of Nghia Binh, Binh Tri Thien, Ha Nam Ninh, and Hai Hung, who have gone there to create new economic zones.

In that plateau area there are thousands of streams which flow into three major rivers, the Po Co, the Ba and the I-Drang, and are also the source of such large rivers as the Thu Bon, the Tra Bong, the Ve, the Tra Khuc, etc. The area is very sunny, there is much rain, and the climate varies according to the terrain and altitude of each area. That creates conditions for the breeding of mosquitoes and for the development of malaria.

Many medical examinations have shown that the ratio of parasite infestation among the people is 12.1 percent. Malaria accounts for 42 percent of the cases treated in medical facilities, and the death rate due to malaria is very high.

Gia Lai-Kon Tum has begun the task of eliminating malaria and protecting the health of the ethnic minority people and the people in the new economic zones. Last year Gia Lai-Kon Tum carried out two DDT sprayings within the sphere of the entire province, and gave 1,028,820 inoculations. During the first 6 months of this year Gia Lai-Kon Tum used 30 tons of a 75 percent DDT solution to spray 168 villages and precincts, and inoculated 595,906 people, including 51,754 people in 51 new economic zones. Some 548,162 people were given preventive treatment by taking fixed doses, and consumed nearly 4 million malaria pills. In 1977 (the base year), the malaria parasite rate was 12.7 percent, but it has now declined to 2.07 percent. The number of patients treated for malaria in the medical facilities has gradually declined: in 1977 they accounted for 42.3 percent of the patients, in 1978 for 31.4 percent of the patients, in 1979 for 16.6 percent of the patients, and during the first 6 months of 1980 for only 13.3 percent.

By the end of this year Gia Lai-Kon Tum is determined to fulfill its malaria eradication plan by lowering the parasite-infestation rate in the province to under 2.5 percent, making Kon Tum City and A-Giun-Pa District the first district units to essentially eliminate malaria, and practically contributing to protecting the health and improving the living conditions of the people and to strengthening the economy and national defense.

5616

CSO: 5400

YELLOW FEVER CASES REPORTED, PREVENTIVE MEASURES TAKEN

Caracas EL UNIVERSAL in Spanish 13 Nov 80 Sec 4 p 35

[Text] Caracas, 12 Nov (VENPRES)--New cases of yellow fever have been reported this year as the result of uncontrolled immigration across our borders, according to a statement made today by Rafael Alborno, director of public Health of the Ministry of Health and Social Welfare (MSAS).

Alborno said that those affected, a total of four thus far this year, are persons without identification papers almost all from Colombia.

It is important to note that during 1975, 1976 and 1977, no cases of yellow fever were reported, which makes us believe that it was beginning in 1978, when immigration of persons without IDs started to increase, that new persons affected by this terrible disease started to show up, Alborno said.

"Since we are unable to control these people, we recommend that all persons traveling to the interior be vaccinated against yellow fever to prevent contagion and propagation," he added.

"However, we believe," the official pointed out, "that more cases have not been reported because of the MSAS vaccination campaigns throughout the country."

He said that forest yellow fever exists in our country in all the San Camilo forest, south of Lake Maracaibo and in the areas of Guayana, which runs along the entire coast to Miranda state and the hills of Bachiller.

He also said, "We administer about 600,000 vaccinations annually in rural areas; and, even though we hope to expand our campaigns, we are facing the serious problem that Venezuela does not manufacture vaccines against yellow fever."

The doctor added that the government had intended to import vaccines from Colombia; however, as this was not possible, vaccines are being brought in from Brazil.

A new measure adopted by the MSAS calls for airline companies to require a yellow fever vaccination for persons traveling to Canaima 10 days in advance of their departure, as it is after this period of time that the vaccine's protection against yellow fever really begins, Alborno said finally.

VENEZUELA

BRIEFS

RABIES CASE REPORTED--Barquisimeto, 15 Nov--An old man identified as Simon del Carmen Mendoza, 71, died of hydrophobia in one of the wards of Central Hospital in this city. It was learned that the septuagenarian, who lived in Barrio Union, was bitten by a dog infected by rabies and did not report for medical treatment on a timely basis. When he did go the hospital center, the disease was quite advanced and he died of hydrophobia. Mendoza was a carpenter and was bitten by a street dog in his barrio but failed to seek medical attention. He is the second rabies victim in the city this year. [Text] [Caracas EL NACIONAL in Spanish 16 Nov 80 p D-29] 8143

CSO: 5400

TESTING FOR AFRICAN SWINE FEVER IN GUANTANAMO

Havana GRANMA in Spanish 17 Nov 80 p 1

[Article by Orlando Gomez]

[Text] Biological tests performed thus far in Guantanamo Province among hundreds of "follow-up test" hogs kept where there were outbreaks of African swine fever have uncovered no signs whatever of the deadly virus.

Once these tests have been satisfactorily completed, in December, all these animals--called "follow-up test subjects" by the veterinary technicians because by being present at previously infected sites they indicate whether or not the virus remained--will be sacrificed. They will then be examined again macroscopically in Guantanamo before being sent to the National Swine Fever Laboratory in Havana, where they will be examined microscopically.

If the final results of these very exhaustive tests demonstrate that no "follow-up test" hog was affected by the virus, the CENSA [National Animal Health Center] will propose to the government that hog-raising be resumed in Guantanamo Province, beginning naturally with the state units where the strictest protective and hygienic measures will be observed.

While this has been taking place, in anticipation of authorization to resume hog-raising there, the province has been preparing to raise, during the next few years, an impressive number of hogs of high-quality stock that will guarantee a supply of a part of the animal protein needed by inhabitants of Guantanamo and will provide meat for the rest of the people of Cuba.

An example of those preparations is the modern feeding facility with a capacity of 10,000 hogs under construction on the outskirts of the city of Guantanamo. It has all the technical elements and provisions for animal and human safety required of an installation of this sort in our country.

The project will be completely finished and turned over by the builders, Architectural Enterprise No 23, Brigade 81-42, to its sponsor, the Guantanamo Hog Enterprise, during the first quarter of 1981.

This hog-feeding facility--whose various elements are already, on the average, 80 percent complete--will automatically supply the 10,000 animals feed based on food garbage from the nearby city, which will be converted to liquid feed in the

facility's processing plant. The feed will be piped directly to each compartment or pen housing hogs.

The facility also has a complicated plant for the treatment of liquid and solid waste. This will insure processing that precludes any pollution of the water table and the transmission of disease to human beings. The resultant sediments will be removed dry and will serve as organic fertilizer used in agriculture.

One of the chief characteristics of this project, which provides a high degree of health protection for the animals, is that it is divided into two well-separated sections: one that is completely sterile and one that is not. Also worthy of mention are all the rigorous anti-epizootic measures taken, not only there but throughout the country, for the raising of this valuable animal species.

9085

CSO: 3010

'PARVOVIRUS' REPORTED TO BE ATTACKING DOG POPULATION

Caracas EL UNIVERSAL in Spanish 18 Nov 80 Sec 1 p 22

[Text] By means of an analysis made with an electronic microscope, in the Venezuelan Institute of Scientific Research (IVIC), the existence of "parvovirus" in the feces of dogs was confirmed.

This is a viral disease which produces bloody diarrhea, lowered resistance and the death of the animal in a period of 48 hours.

This information was supplied to EL UNIVERSAL by the former president of the Venezuelan Society of Small Animal Veterinarians, Dr Enrique Gosling Guerire, who warned, "This disease could have serious economic repercussions due to the fact that it could affect the country's cattle, pork and poultry sectors."

When questioned about the statements given to the press of the capital by the Public Health Office of the SAS [Health and Social Welfare], which denied the existence of this virus, Dr Gosling Guerire said, "That was a very offhand reply inasmuch as it denied the existence of something which was not possible for them to verify or detect based on scientific reasons, since without an analysis of the feces with an electronic microscope it is impossible to make a diagnosis in animals and human beings. At the National Institute of Hygiene where they sent their samples, there is no instrument of this power.

To a newsman's question, Dr Gosling said, "The samples of feces taken from children should be examined in the same way, as the parvovirus can also effect human beings."

He also said, "It is necessary and urgent that appropriate sanitary measures be taken at the country's ports and airports to prevent the continuing import of hundreds of diseases which affect our people."

He added, "It is important for the United States embassy to be informed and to take the necessary steps, as the veterinarians of that country are not complying with international standards for the control of animal epidemics and public health, resulting in the arrival in Venezuela of dogs and cats with fungi, mange, intestinal parasites and other viral diseases."

Dr Gosling reported that even though antiparvovirus vaccine is not being produced in Venezuela, there is a sufficient amount of such vaccine in the various clinics of Caracas.

VENEZUELA

FOOT-AND-MOUTH DISEASE OUTBREAK REPORTED

Caracas EL NACIONAL in Spanish 6 Nov 80 p D5

[Text] Barquisimeto, 5 Nov (Special)--Another outbreak presumed to be of foot and mouth disease has been detected at a cattle ranch in the Torres district of the state of Lara, according to Dr Orlando Ramos, coordinator of livestock development for the Ministry of Agriculture and Livestock [MAC] in this region.

"The new outbreak has been found at the El Docoro ranch in the township of El Blanco in the district of Torres, where some 160 head of cattle are affected. It is clear that we are dealing with a vesicular disease, and samples have been sent to the Veterinary Research Institute in Maracay for a determination by way of analyses as to whether it is indeed foot and mouth disease," said the MAC official.

At the El Docoro ranch, where the disease was detected, there are some 2,500 head of cattle, and health measures are already being taken, which include mass inoculation and immobilization of the cattle to prevent further contagion.

This is the second time in recent months that cases of foot and mouth disease have been detected in Lara's cattle ranches, previous similar cases having occurred in areas of the Urdaneta district.

9399

CSO: 5400

BRIEFS

EFFECTS OF DROUGHT--This year's drought is expected to result in the second-lowest wheat yield in WA for 34 years. A yield of 0.71 tonnes a hectare has been forecast by the Minister for Agriculture, Mr Old. In 1946-47 and 1969-70 the yield was 0.66 tonnes a hectare. Four more shires were drought-declared yesterday. They are Wongan Hills (the eastern section), Morawa (13 farms), Yilgarn (the whole shire) and Dundas (all the agricultural area). Further small parts of Dowerin and Beverley were also declared. The declaration--recommended by the Drought Consultative Committee and approved by Mr Old--brought the total of declarations to 31. Mr Old said that October rain had given a slight boost to the State's cereal production estimates, with a total wheat yield of 3.09 million tonnes now expected. But total cereal production would still be about 800,000 tonnes less than last year, though an extra 300,000 hectares had been sown. [Excerpt] [Perth THE WEST AUSTRALIAN in English 8 Nov 80 p 3]

SKELETON WEED--A Pithara farmer, Gary Franklin McKay, has been fined \$40 with \$45.60 costs in the Moora Court for a breach of skeleton-weed quarantine. An Agriculture Protection Board district officer, Stephen Wiencke, told the court that McKay's farm was placed in quarantine in January 1979 when skeleton weed was found on it. After the hearing the chief officer of the APB, Mr Neil Hogstron, said that the prosecution was the first for violation of skeleton weed property quarantine. The vast majority of farmers realised that it was vital to eradicate skeleton weed from the State and they cooperated fully. Last year, farmers had voluntarily contributed more than 1600 man-days to help search infested paddocks and the surrounding areas. [Excerpts] [Perth THE WEST AUSTRALIAN in English 8 Nov 80 p 26]

CSO: 5400

DOMINICAN REPUBLIC

OUTBREAK OF BLUE MOLD DISEASE REPORTED

Santo Domingo LISTIN DIARIO in Spanish 7 Nov 80 pp 1, 13

[Article by Epifanio Rodriguez]

[Text] Santiago--Specialists of the Tobacco Institute have confirmed the presence of the fungus that is presumed to cause blue mold disease in tobacco, which was detected in the La Canela section of this township last Monday.

Minor outbreaks of the disease have been verified in the communities of Navarrete, Las Cienegas and Palmar Abajo.

This information was released yesterday morning at a press conference by agronomist Ariosto Mendez, director of the Tobacco Institute [INTABACO].

The specialists proceeded immediately to burn the crops in the La Canela area that had been affected by the fungus, and the zones where the outbreak has appeared are currently being combed using Ridomil.

Agronomist Mendez said that samples of the affected seed beds have been taken to the phytopathologic laboratories of the Secretariat of Agriculture's Plant Health Department and are presently undergoing study, involving also the laboratories of the Advanced Institute of Agriculture, to determine whether this species of fungus is indeed the cause of the disease.

The disease was discovered when Adolfo Ventura, farmer, noticed in some seed beds symptoms resembling those described in one of the circulars distributed by the INTABACO as part of its preventive measures.

Preliminary studies revealed the presence of the fungus belonging to the Peronosporales family, one species of which is the cause of the disease known as "blue mold."

Agronomist Mendez expressed the opinion that the spores of the fungus had been carried by the air. He said that these can travel through the air at a rate of at least 100 kilometers daily.

Government authorities voiced a warning recently at a press conference on the danger that blue mold represents for the Dominican Republic in view of the fact that the disease exists in some countries in the area, such as Haiti, Cuba and Jamaica, where it has caused severe damage.

A strategic plan has been drawn up to fight the disease. INTABACO specialists held a meeting yesterday which was attended by agronomists Eligio Frias and Pedro Felix, director and deputy director, respectively, of the Secretariat of Agriculture's Plant Health Department.

Dr Furny Toodd [as published], specialist in phytopathology, professor at the University of North Carolina in the United States, is providing help as a consultant.

Mendez asserts that sufficient technical capability as well as the necessary resources to combat the disease are available.

He explained that in Europe, the United States and other Latin American countries where this disease is endemic normal crops are achieved every year.

Blue mold is a fungus that destroys tobacco plantations voraciously, producing losses totaling millions.

The director of INTABACO discounted the probability that the forthcoming crop will suffer losses owing to this disease. All the seed beds will be fumigated where necessary.

To date, the current tobacco season is still at the seed-bed stage. For this crop, INTABACO has programed the planting of more than 400,000 hectares.

9399

CSO: 5400

KERALA PALM TREES AFFECTED BY ROOT WILT

Madras THE HINDU in English 24 Nov 80 p 7

[Text]

BAFFLIED by a disease which is nearly a century old, coconut cultivators in six out of the 12 districts in Kerala are earnestly learning how to live with the disease.

Root wilt is one of the diseases that have defied man and science so far. First noticed in 1882 at Eeraattupettah (in Kottayam district) after a devastating flood in the Meenachil river, the disease made its second appearance a decade later in Kaviyoor and Kalliooppaara in Thiruvalla taluk (Alleppey district) and in Karunagappally taluk, a coastal area in Quilon district.

On a rough estimate, the State today loses nearly 35 crores of coconuts a year because of this disease, which has affected 2,50,000 hectares—nearly one-third of the total 7.5 lakh hectares of land under coconut crop.

The disease spreads at the rate of four to six kilometres a year. The areas affected are: the area south of Aala, Keezhpallikkara, Eerakom and Aaraattupuzha in Trichur district, north of Nemom, Neyyatinkara and Neyyar in Trivandrum district and the midlands between the coastal areas in the west and the High Ranges in the east.

Even as research is going on in the laboratories in several countries, the Central Plantation Crops Research Institute (CPCRI), in collaboration with the Kerala Agriculture Department, has decided on a massive replantation programme which will ultimately cost nearly Rs. 1,000 crores in 30 to 50 years. This replanting cycle will be repeated every 50 years.

The replanting process has already commenced in the border areas where the disease is nascent. The aim is to create a disease-free zone in Trichur and Trivandrum districts so that its northwards and southwards spread can be prevented.

The northern boundary is the Karuvannur river, about 10 km. south of Trichur. Between the north of Chalakudi river and the south of Karuvannur river in Trichur district, it is estimated that there are about 25,000 diseased palms, which have been removed. Since October 1978, a field station of the CPCRI has been functioning at Irinjalakuda in Trichur district, to keep a watch on the disease.

To check the southward spread of the disease, CPCRI has urged the Tamil Nadu Government to remove the diseased palms in Kanyakumari district. On its part, the Kerala Agriculture Department has ordered the destruction of the diseased palms south of Neyyar river, the aim being the setting up of a disease-free zone between the Neyyar and Poovar rivers.

A major problem faced by authorities in carrying out these programmes is the resistance—more often sentimental than logical—to the cutting down of a coconut tree, however, useless it may be. It was only recently that farmers in Kerala took to coconut cultivation seriously.

According to CPCRI estimates, the proper care of one tree will entail an annual expenditure of about Rs. 18. The market price of one coconut now varies from Rs. 1.50 to Rs. 2.50—the latter price being the rate in cities and in "Gulf

money areas."

The CPCRI and the Government are trying to impress on the farmers that a tree which does not yield at least a dozen nuts in a year is not worth preserving. As an incentive, the Government gives Rs. 75 for every diseased palm removed. The farmer is also given a hybrid variety of seedling to be planted in place of the removed palm.

Along with the replanting programme, there is also a major drive to educate farmers in managing the diseased palm. One significant aspect of root wilt is that it is basically a debilitating one and not a lethal one like the dying noticed in the palms in the Philippines or the lethal yellowing noticed in Jamaica.

The management of a diseased garden involves maintaining of milch cattle, growing fodder crops and recycling organic wastes. These have paid rich dividends.

These practices have reduced the intensity of the disease and increased the nut yield by over 25 per cent over a five-year period. There have been instances when a diseased tree yielded 41 nuts a year as against 31 before the nursing.

The schemes success encouraged studies on inter-cropping and mixed cropping in the diseased gardens, using a large number of annual and perennial crops. The mixed farming experiment was first launched in the CPCRI regional station at Kayamkulam in 1970.

In an area of about 1.3 hectares, five milch cows were maintained in the farm along with fodder and

other crops. It was found that the crop had a favourable impact on the microflora colonising on the root surface of the coconut palms irrespective of the diseased condition, showing an increase in the number of nitrogen fixing and phosphate solubilising organisms.

More extensive studies followed these encouraging results and the experiments were extended to the cultivators' farms. The main objective was to assess the relative merits of tuber crops such as tapioca, colcosia, yam, elephantfoot yam, ginger, turmeric, legumes and cocoa.

The cultivation of cocoa in root wilt affected coconut gardens with irrigation resulted in an increase of approximately a 100 per cent yield of coconuts over a period of three years.

The crops selected for this purpose are such that they bring adequate income to the farmer as compensation. Apart from motivating the farmers to go in for mixed cropping, Government agencies and local bodies are also taking up the question of extending financial assistance to the farmers at concessional interest rates.

Pursued seriously, these can go a long way in minimising, if not

putting an end to the loss caused by the root wilt disease. The annual loss, including that of services and wages is estimated to be around Rs. 51 crores in Kerala.

As a long-term measure, the Rs. 1,000-crore scheme also envisages the uprooting of all coconut trees in the disease-affected districts. The land would then be surveyed and classified into three types: areas where coconuts could be planted under irrigation, where the crop could be raised under rain-fed conditions and areas which are unsuitable for cultivation.

While hybrid seedlings would be planted in irrigated areas, high-yielding tall varieties would be introduced in rain-fed areas.

The responsibility for replanting and raising plantations up to the fruit-bearing stage would vest in a separate agency to be set up for this purpose. The plantation would be handed over to the farmers at the bearing stage.

The cost incurred will be recovered from the farmers in 15 years. Interest on capital investment will be subsidised. The hope is that this project will help double coconut production in 15 years.

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END

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Worldwide Report

EPIDEMIOLOGY

No. 213



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19 January 1981

WORLDWIDE REPORT

EPIDEMIOLOGY

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EPIDEMICS OF CHOLERA, INTESTINAL DISEASES NOTED

Dacca THE BANGLADESH TIMES in English 23 Nov 80 p 5

[Text] Rangpur, Nov. 22: About 200 persons died of cholera, diarrhoea, gastroenteritis and other chronic stomach diseases which broke out in epidemic form in various corners of the district during last one month.

Among these about 50 are said to have been died of cholera. According to reports more than 1,000 persons are suffering from cholera and other diseases in these areas. Some samples of cholera germs of the patients have already been sent to Mahakhali Cholera Research Institute, Dacca, for examination.

District Health Department is quite unaware of the gravity of the situation. When this correspondent contacted the Civil Surgeon Rangpur he refused to give any information regarding the outbreak of cholera and other diseases.

It is alleged that due to negligence and lack of farsightedness of the District Health Department officials to take adequate precautionary measures to check the outbreak of cholera and other stomach diseases in due time in the wake of flood, these diseases broke out almost in epidemic form and is rapidly spreading over new areas. The worst cholera and other stomach diseases hit areas are Saidpur Kishorganj, Jaldhaka, Kaunia; Ulipur; Saghata; Fulchari; Sanderganj, Roumari, Lalmonirhat; and Kurigram.

Kurigram

Our Correspondent from Kurigram adds: Gastroenteritis, diarrhoea and dysentery have claimed more than 80 human lives throughout the Kurigram subdivision during the second week of October.

The intestinal diseases broken out in an epidemic form at different places of Ulipur Chilmari, Rowmarj; Rajibpur; Nageswari; Kurigram; Bhurungamari and Fulbari police stations. The worst affected police station is Ulipur where more than 60 persons died by that time, it is officially learnt. More than 900 people, including children have been attacked with these diseases.

The Deputy Director of Health and representatives of World Health Organisation visited the affected areas of Ulipur. All possible preventive measures have been taken by the Health Department.

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BRAZIL

VACCINATION FOR YOUNG CHILDREN PLANNED BY END OF 1981

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 11 Dec 80 p 16

[Text] By the end of 1981, the Ministry of Health plans to vaccinate all children 5 years old and under against poliomyelitis, measles, tetanus, whooping cough, diphtheria and tuberculosis. This announcement was made yesterday by Minister Waldyr Arcoverde during a press conference held at the Planalto Palace, especially for the announcement of the results of the mass vaccination campaign against infantile paralysis in the months of June and August, which produced a drop in the incidence of the disease throughout the country.

In October, only 14 cases of polio were reported as compared to 186 in October 1975, representing a reduction in the earlier average, which varied between 95 and 385 cases per month, by a factor of 13. Since the vaccination campaign, which was carried out in 2 stages--on 14 June and 16 August--not a single case of polio has been reported in the state of Sao Paulo or the Federal District. In the states of the North, Center-West and South, one case was reported, and there were seven in the Southeast.

The press conference was inaugurated by Minister of Mass Media Said Farhat. Minister of Welfare and Social Security Jair Soares also participated, stressing the importance of the joint action of his ministry and the health ministry. He stated that the number of children vaccinated against polio--44.5 million--is unprecedented in world history. This was only made possible by the integration of the two ministries with the state health secretariats, involving more than 300,000 persons, 92 vaccination stations and 65 million doses of oral vaccine. With the success achieved in the campaign, Jair Soares said that other programs, particularly in the maternity-child care area, including family planning, will be carried out by the two ministries beginning next year, using the whole of the health structure existing in the country.

The same system of mass vaccination will be pursued in the next 3 years (on the second Saturday in June and the third Saturday in August) until the disease is brought under control--150 cases a year more or less, and from then on only the children born in that year will be immunized. The health minister hopes to vaccinate 80 percent of the children 5 years old and under, at a minimum, in the future, as this is the index necessary to break the transmission chain of the disease.

Currently, the main problem in Brazil's achieving self-sufficiency in the production of vaccines against polio remains the import of African monkeys needed for laboratory research. The Ministry of Health has already begun negotiations through the Itamaraty Palace, and hopes not only to produce enough to meet the domestic demand but to be exporting this product by 1983.

The explanations by the two ministers were illustrated with epidemiological graphs showing the incidence of polio in the period between 1975 and 1980, when the variation in the disease was more or less stable. According to the national secretary for basic health activities, Joao Baptista Rizzi, vaccination throughout these years did not interfere with the continuity of the disease, which was not seen until after the mass immunization campaign.

The secretary in charge of the campaign said that the incidence of polio, on the basis of cases reported in 1980, was reduced to levels far below the minimal limits seen in preceding years, with a clear correlation with the two mass-vaccination stages. It revealed the immediate effects of immunization programs in areas with a high incidence of polio, accompanied by the intensified epidemiological surveillance needed to guarantee effective control of the disease.

The director of the national epidemiological division at the Ministry of Health, Roberto Augusto Becher, called attention to the increase in the number of cases reported after the mass vaccination campaign, noting that for this reason the decline in the incidence of the disease is much greater than the epidemiological data recorded by the ministry shows.

Sabin Urges Continued Effort

In order to be free of poliomyelitis, the country will have to maintain the vaccination campaigns of the sort carried out this year for a minimum of 10 more years. This recommendation was made by Prof Albert Sabin in Curitiba yesterday, shortly before he was made an honorary citizen of Parana by the legislative assembly of the state in a ceremony attended by Governor Ney Braga.

Sabin had little to say to the press. He merely stressed that it is necessary to continue the mass vaccination campaigns, without giving much credit to the arguments of some health workers who say that this might discourage the use of health stations, the product of a habit acquired in some Brazilian states. Sabin said that "the people must wait for the anti-polio campaigns, which should be carried out at the same time each year. They should go to the health stations to obtain other types of vaccine."

In a speech of thanks for the honor accorded him by the deputies, Sabin said that the campaigns carried out in Parana, a state which administered two additional doses of the vaccine, since the outbreak which afflicted the country was first discovered there, has already yielded very practical results. "When I talked yesterday (Tuesday) with the state health bodies, I learned that five cases of polio had been reported this summer. On checking directly, it was possible to learn that in fact none of these were polio cases. This leads me to believe that Parana will be free of the disease, if only the campaigns are continued."

Deputy Jose Tavares, the sponsor of the proposal to confer the honor on Prof Albert Sabin, reached the conclusion on the basis of talks with Sabin that he still has some reservations about the plan for combating polio being pursued in the country. The deputy could not explain what kinds of reservations and Sabin himself did not at any time reveal them. On the contrary, in his speech to the deputies, he said that due to the kind of work done this year against the disease, the country has come to serve as an example for other tropical or sub-tropical nations with serious polio problems.

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BRAZIL

UNIDENTIFIED ILLNESS KILLS FOUR IN PARANA

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 10 Dec 80 p 14

[Text] Curitiba--A strange disease, probably a virus difficult to identify, struck a family in the small community of Campo Limpo, 70 kilometers from Curitiba, causing 4 deaths and the hospitalization of 2 other individuals, who are seemingly out of danger. The health authorities, although they feel there is no need to quarantine the area for the time being, recommend that no one enter or leave the community until the disease is identified.

Technicians from the General State Laboratory patrolled Campo Limpo all day yesterday looking for wild animals, passerine birds and insects in a search for clues. Samples of blood, urine and other fluids were also taken from the patients in isolation at the Oswaldo Cruz Hospital--a woman and a little girl of three. The samples were analyzed at the Adolfo Lutz Institute in Sao Paulo and the Evandro Chagas Institute in Belem, since the laboratories in Parana are not equipped for the purpose.

The problem was discovered on the 7th of the month when police took the body of Reginaldo Rodrigues Simeao, 18, to Curitiba for IML investigation of his death. The studies revealed lesions due to pneumonia, myocardia, and hydrocephalus, probably caused by a virus. It was then discovered that there had been three other deaths in the family preceding that of Reginaldo. On 21 November, his brother-in-law, Joao Taborda, age not known, died, having had the same clinical symptoms. On 4 and 6 December, Lucimar, 8 years old, and Isaias, 2 years old, both Joao's children, died. Another daughter, Lea Regina, 3 years old, and his sister-in-law, 33 years of age (name not released), are being treated at the Oswaldo Cruz Hospital, and by yesterday, according to Director Ary Fontoura da Silva, they were at least seemingly out of danger.

Dr Antonio Viana of the Santa Julia Hospital in Bocaiuva do Sul, about 30 kilometers from Campo Lindo, was the physician of the little girl, Lucimar. He said that as he had difficulty diagnosing her ailment, he decided to send her to the Curitiba Clinical Hospital, where, he said, the doctors found nothing and believing that the child was not seriously ill, sent her back to Bocaiuva, where she died.

While the director of the epidemiological control department of the health secretariat, Jair Pazzelo, asked that the case not be publicized in order "not to alarm the population" (for this reason he did not identify the victims), the

technicians at the General State Laboratory spoke of a "epidemiological investigation" to establish the cause of the deaths of the members of the Taborda family.

It is suspected that an arbovirus, which is uncommon in Brazil, and is generally transmitted by mosquitoes, is involved. The doctors explain that this virus needs a "reservoir," for example small forest animals, and a "vector," the mosquito, in order subsequently to attack human beings. When identified, the only treatment is symptomatic, because there are no vaccines or other more effective methods.

Until they know what type of disease they are fighting, health workers will have to wait 30 days at least until the analyses are completed, technician Carlos Viana of the General State Laboratory said. All they can do in the meantime is to try to save Joao Taborda's daughter and sister-in-law.

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BRAZIL

SCHISTOSOMIASIS REPORTED SPREADING THROUGH COUNTRY

Rio de Janeiro JORNAL DO BRASIL in Portuguese 12 Dec 80 p 6

[Text] Schistosomiasis is a disease on the rise in Brazil, affecting approximately 10 million persons, the vice president of research at the Oswaldo Cruz Foundation Institute in Manguinhos, Jose Rodrigues Coura, announced yesterday during the fourth day of the scientific campaign sponsored by the foundation, ending today.

Another disease which is assuming the dimensions of an epidemic outbreak is leishmaniasis tegmentaria diffusa, although to date no special effort has been mobilized to control it. With regard to visceral leishmaniasis, which was only seen in 1977 in Rio, application has already been made to the Superintendency for Public Health Campaigns (SUCAM) for a protocol to provide for a survey of areas where the carrier insect is found (no response as yet).

Control Difficult

Professor Coura regards the control of schistosomiasis as extremely difficult, and in urban areas it depends on basic sanitation. Treatment should be exceptional in the early stage of the disease—generally between 5 and 15 years of age—to prevent it from developing. Currently there are isolated centers of the disease in Rio, in Jacarepagua, Niteroi, Sao Goncalo, Santa Clara, the northern part of the state of Rio de Janeiro, and Sumidouro, as well as some new cases in the Rio de Janeiro Lowlands.

"The main problem is to prevent the disease from invading the Amazon region, because an isolated case has already been found in Para. With the clearing of the jungle redoubled care is necessary, because the region could become a major center. There is a tendency for schistosomiasis to spread in the country generally, and mortality runs to only 1 in every 44,000 cases. However, less serious cases affect almost a tenth of the population," the professor said.

Giovani Gazinelli, of the Prof Rene Rachou Research Center in Belo Horizonte, is pursuing studies on a vaccine against schistosomiasis, using mice, although 100-percent immunization has not been achieved. He believes that use for human beings will only come in about 10 years, and even so the vaccine will only be efficient if used in conjunction with a series of other measures, such as prophylactic medication and sanitation.

New Outbreaks

Researcher Mauro Cesar Marzochi of the Osvaldo Cruz Foundation reported that although leishmaniasis tegmentaria diffusa, a cutaneous infection which can produce serious lesions in the nose, larynx and pharynx, is assuming the dimensions of an epidemic outbreak, the only control measure adopted to date is the simple reporting of cases. From 1975 on, 200 cases were reported in Jacarepagua and Campo Grande. Researchers at the Osvaldo Cruz Institute maintain a laboratory at the satellite unit of the municipal health secretariat in Vargem Grande and check on all diagnoses.

"Popularly known as malignant sores," Marzochi explained, "leishmaniasis can disappear spontaneously after several months. But the only medicine which can cure it is pentavalent antimonial salt, discovered by Gaspar Viana in 1913, when he saved innumerable lives in an epidemic in India."

Visceral leishmaniasis, an infection of the cellular defense system characterized by extreme loss of weight, fever, anemia and enlargement of the spleen and liver, was only reported in Rio in 1977, with one case in Bangu. Since that time, 13 other cases have been reported, one of them in the same household where the first occurred, and the others in Senador Camara, in the Viegas Mountains, and Realengo, in the Barata Mountains.

If not treated (with the same antimonial salt used for leishmaniasis tegmentaria diffusa), the disease may be fatal to man, while for dogs, there is no cure. Control of endemic outbreaks involves treatment of the patient, spraying with DDT and elimination of sick dogs. Currently the researchers at the institute are awaiting the protocol on evaluation of areas where the carrier insect is found, which has not yet been issued although it was requested 3 months ago.

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BRAZIL

INCIDENCE OF TUBERCULOSIS IN PERNAMBUCO REMAINS STABLE

Rio de Janeiro JORNAL DO BRASIL in Portuguese 12 Dec 80 p 9

[Text] Recife--In all, 2,687 cases of all forms of tuberculosis were reported in Pernambuco this year by the Pneumological Division of the state health secretariat, according to its head, Roberto Campelo, who said that "the incidence of the disease has remained stable in the region since 1978. Through the use of BCG vaccine, we are seeking to reduce the incidence of this disease still further, in particular that of tubercular meningitis. Thus the goal of the national pneumological division is to immunize infants as soon as possible at the health stations and maternity homes," he said.

Cough

"Any individual who coughs and spits for more than 2 weeks should go to a health station for a mucus test (bacteriological) which along with a histopathological test, makes an exact diagnosis of tuberculosis possible. If the disease is found, the patient can remain with his family and continue with his work, during treatment."

Agreement

Brasilia--Minister of Health Waldir Arcoverde has announced that by February all of the states will be participants in the agreement on tuberculosis control between the Ministries of Health and Welfare and Social Security and the state health secretariat.

Outpatient and hospital treatment will be the responsibility of the state secretariats with the support of the two ministries. The advantage of the agreement is that the secretariats can provide medical aid to patients in their native municipalities.

The head of the tuberculosis program at the Rio Grande do Sul Health Secretariat, Werner Ott, has visited various states where the agreement is already in effect to assess the development of the work.

Next week, according to the assessment submitted yesterday to Ministers Waldir Arcoverde and Jair Soares, the two ministries should define the strategies for the treatment of tuberculosis in 1981.

Curitiba--The General Laboratory of the state of Parana is expected next week to announce the first results of the studies being made in order to find the causes of an acute infectious disease which caused the death of four members of the Taborda family in Campo Novo, municipality of Bocaiuva do Sul, 35 kilometers from Curitiba.

Health Secretariat doctors are optimistic about the prospects for the disease, since no probable cases have developed since the death of Reginaldo Simiao 4 days ago. The director general of the SESB, Jair Pazzelo, believes that the disease "may be limited to the environment in which the Taborda family lived."

The last three victims of the disease, Lea Regina (3 years of age), Angelina Taborda (33) and Raimundo Simiao, are out of danger.

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TUBERCULOSIS INCIDENCE, FUNDING AND CONTROL OF PROGRAMS DISCUSSED

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 4 Dec 80 p 7

[Text] There are approximately 250,000 tubercular Brazilians and 35 million individuals infected with the Koch bacillus. Annually, about 120,000 new cases of the disease are discovered. Although the country is spending about 6 billion cruzeiros--more than half of the overall budget for the Ministry of Health for 1980--on tuberculosis programs and treatments, the health authorities themselves admit that "given the current conditions of life in Brazil, not even a superefficient policy could eliminate or control the disease."

The Sao Paulo State Health Workers Association will submit a report on the tuberculosis situation in the state today to Adib Jatene, secretary of health. The number of patients is estimated at 24,000, but only 18,000 are receiving treatment at our health centers. In the view of the association, one of the main difficulties in controlling the disease is the proliferation of state and private institutions involved in the problem and acting in different ways. The rate at which treatment is being abandoned is approaching 30 percent, and the rate of discharge comes to only 50 or 60 percent of the patients, although the expectation of cure which is perfectly possible with existing medications is about 90 percent.

The health secretariat has 800 health centers throughout the state, 200 of them in greater Sao Paulo. Of these, only 23 percent offer treatment for tuberculosis, although in 1976 a subprogram to combat the disease was launched, and in accordance with the plans of the health secretariat itself, it should have been under development in all 800 units by 1980. But the reality is that even the centers which have antituberculosis programs are operating on a precarious basis. For example, in that in Maua, in the greater ABC [Santo Andre, Sao Bernardo do Campo and Sao Caetano do Sul] industrial area, which should have 90 employees according to the plan, there are only 29 persons employed now, and not a single visiting health worker to find new cases and direct them to treatment.

The experts say that "the method of obtaining a decline in tuberculosis indices involves avoiding contagion, i.e., diagnosing and treating those who are ill." But only 46.6 percent of the 5,656 health units in the country are engaged in the treatment of tuberculosis. The Sao Paulo State Health Workers Association believes that 50 percent of the Brazilian population is infected with the Koch bacillus, while the Ministry of Health Pneumological Division estimated in 1970 that 40 percent of the Brazilian population was infected. The association argues that "in these 10 years, there has been no significant improvement in the socioeconomic conditions in which the people live nor in the health services to make a reversal of this trend possible."

Cost at Six Billion Small

Brazil spends about six billion cruzeiros annually on programs to control and treat tuberculosis. But the national secretary for special health programs, Franz Rulli, himself, admits that "with the current living conditions for Brazilian citizens, not even a superefficient policy could eradicate or even control the disease." Some 120,000 new cases of tuberculosis develop in the country every year and about 35 million individuals are infected. Only 65.6 percent of the 3,974 Brazilian municipalities are engaged in the diagnosis and control of the disease.

In the State of Sao Paulo, 20 percent of the health secretariat budget goes in expenditures to treat tuberculosis patients--about 18,000, including about 12,000 persons carrying the bacillus, i.e., eliminating it in phlegm and thus representing sources of infection. The secretariat has 800 health centers, 200 in greater Sao Paulo and 600 in the interior, and only 23 percent of the units in the capital are offering treatment for tuberculosis. With the agreement recently signed between the state health secretariat and the ministry of welfare and social security, new resources will be provided and the services should improve. In accordance with this agreement, the INAMPS [National Institute for Social Security Medical Assistance] will transfer all its responsibilities for tuberculosis to the Secretariat of Health, eliminating one of the main difficulties in the control and treatment of the disease--the proliferation of state and private institutions dealing with the problem.

Franz Rulli, national secretary for special health programs, reports that the six billion cruzeiros include the total expenditures for all agencies engaged in the prevention and treatment of tuberculosis. Annual expenditures on medications total 150 million cruzeiros, but with the shortened therapeutic system (six months) requiring more expensive drugs, this total may increase to 720 million cruzeiros. However this will in part be offset by the decrease in the number of patients hospitalized, in accordance with the current Ministry of Health policy of giving priority to outpatient treatment.

According to studies made by the Ministry of Health Pneumological Division, approximately a half of the six billion cruzeiros is spent by the health ministry itself, the state secretariats and other government bodies. Through agreements with the health secretariats, the INAMPS accounts for 850 million cruzeiros, included in the 3 billion. However, Renato Bataglia, the INAMPS director for the development and promotion of personal health, said that this amount was "drastically reduced as a function of the economic situation in the country."

In Sao Paulo, Gilberto Arantes, the advisor to secretary Adib Jatene for phthisic affairs, was appointed to coordinate the executive group planning the execution of the agreement signed with the Ministry of Welfare and Social Security. He stated that "85 to 90 percent of the tuberculosis cases in the state are being dealt with by the health secretariat, and the agreement will confirm a situation which already existed in fact." According to expert on phthisic problems Gilberto Arantes, the INAMPS medical aid stations provided treatment for approximately 3,500 tuberculosis patients in 1979 and hospitalized approximately 4,000, while the health secretariat centers cared for 18,000 tuberculosis patients.

Concerning hospitalization for tuberculosis in the state of Sao Paulo, Arantes said that the health secretariat has 1,280 beds available, and the hospitals with which

the INAMPS has contracts have 1,171. In his opinion, 1,000 beds would be sufficient for the state. He explained that "hospitalization for an average of two months is indicated for cases in which there are clinical involvements such as hemoptysis, respiratory insufficiency, weakened general condition or again in social cases--recent migrants, domestic servants and alcoholics."

The studies made by the Ministry of Health Pneumological Division indicate that 55 percent of the six billion cruzeiros spent by the country in the tuberculosis sector go for hospital treatment, "in the majority of cases at exorbitant and unnecessary cost." According to the director of the pneumological division, Germano Gerhardt, if these hospitalization costs were reduced, the financing for drugs could be increased, covering the increase resulting from the change in treatment systems (from one year to six months, with more effective drugs). Gerhardt added that "welfare patients--70 percent of the Brazilian population--are receiving social security benefits, with the present one-year treatment system, for an average period of 400 days." The use of shortened treatment systems, he concluded, will result in the payment of benefits for a shorter time and therefore a reduction in the social cost of the disease.

The agreement between the INAMPS and the state health secretariat in Sao Paulo will be developed in two stages, and 90 percent of the first, involving technical and administrative adaptation of the secretariat, is to be completed by the 31st of the month. The second stage of the agreement will involve the transfer of patients. The total implementation of the agreement should be a reality by 31 March 1981. The main concern of the executive group coordinated by Gilberto Arantes currently is familiarity with all of the treatment systems and the origins of the patients in order to establish priority areas in the capital, "since the majority of the health centers in the interior are treating tuberculosis."

Only 46.6 percent of the 5,656 health units existing in Brazil are treating tuberculosis. It is believed at the Ministry of Health that 86.7 percent of the population total has coverage. Six states have direct overall agreements with the INAMPS. They are Para, Piaui, Ceara, Espirito Santo, Rio Grande do Sul and the Federal District. Of the 65.6 percent of the Brazilian municipalities with tuberculosis control campaigns, 23.5 percent are found in these states. Sao Paulo was the seventh state to confirm the agreement, which the others are expected to do in accordance with a ministerial decision.

Even with the short-term treatment, which began to be used early this year, the Ministry of Health estimates that between 20 and 30 percent of the tuberculosis patients abandon treatment before it is completed. In all, it is estimated that there are 250,000 tubercular persons in Brazil.

Incidence in South Shows Decline

Brasilia--Tuberculosis can be detected by means of a simple sputum test; it can be cured by means of medicines; it can be identified by general clinicians who are not necessarily tuberculosis experts; and it does not require hospitalization of the patient. On the basis of such concepts, and under the full responsibility of the Secretariat of Health and Environment, Rio Grande do Sul achieved an 84 percent rate of cure for the tuberculosis cases reported in the state last year. Between 1971 and 1979, the incidence of the disease dropped by about 50 percent, the number of deaths declined from 1,232 to 543, and the mortality rate declined from 18.1 to 6.8 percent.

The head of the tuberculosis team at the Rio Grande do Sul health secretariat, Werner Paul Ott, believes that with the development of drugs for the treatment of the disease, it has since 1950 become "potentially controllable." However, Ott stresses that the distribution of medication free by the government and the subsequent simplification of the cure contributed greatly to this.

The activities undertaken in Rio Grande do Sul will result in the elimination of the disease in the stage in the medium range, according to the head of the tuberculosis team of the Secretariat of Health and Environment. He warned, however, that because of the characteristics of the disease, this state will last for several years, with a gradual decline in the incidence of cases prior to its disappearance. With this in view, the Rio Grande do Sul secretariat is developing programs in all 300 health units and 20 regional health offices in the 232 municipalities in the state.

In the view of Mr Ott, if the secretariat's procedure is not followed in other regions, it is because the health secretariats do not provide coverage for the entire state or, "as is the case in Sao Paulo, the tradition of hospitalizing patients is still deep rooted." In Rio Grande do Sul, on the contrary, there are only the Partenon Sanatorium in Porto Alegre, with 250 beds, and the Alegrete Sanatorium, with 20 beds.

According to the most recent data studied by the Secretariat of Health and Environment, there were 6,778 cases of tuberculosis in Rio Grande do Sul in 1979 as compared to 7,224 the preceding year, 7,436 in 1977, and 8,205 in 1976. The number of cases declined by about eight percent per year, but the secretariat estimates that 10 percent of the patients abandon treatment every year, whether cured or not.

Since 1971, deaths resulting from tuberculosis have been dropping in Rio Grande do Sul. In 1972, 1,160 tuberculosis patients, or 16.6 percent of the total, died. The following year the number of deaths was 1,033 (15 percent). In 1974, 922 persons (12.6 percent) died, the figure for 1975 was 815 (10.9 percent), that for 1976, 784 (10.3 percent), that for 1977, 667 (8.5 percent), and that for 1978, 543 deaths (6.8 percent of the patients).

Incidence of Tuberculosis in 1979

The expected incidence of positive cases in 1979 (average number of patients per 100,000 inhabitants) was as follows:

Brazil (total)	Northeast	North	Southeast	South	Center-West
66.5	89	110	67	44.5	44.5

Comment: In Espirito Santo, Amazonas, Para and Rio Grande do Sul, where the tuberculosis control program has developed in a way regarded as good, the number of estimated cases corresponded very closely with the cases reported.

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CSO: 5400

MALARIA IN RIO DE JANEIRO BROUGHT IN FROM OTHER STATES

Rio de Janeiro JORNAL DO BRASIL in Portuguese 5 Dec 80 p 5

[Text] Between January and October, 24 cases of malaria were reported in Rio de Janeiro, but all of the cases, except for that involving Elizabeth Maria Vianna, were "imported" from other states, such as Maranhao, where the problem still prevails, and even African countries such as Togo and Zaire. This information was provided by health worker Pelasio Parigot, bureau chief for the Superintendency for Public Health campaigns (SUCAM) in Rio.

He said that there is no possibility of an outbreak of the disease in Rio, because the only confirmed case of malaria was immediately treated, and health workers from the Ministry of Health are collecting blood samples from all the residents on Leonardo Vilas Boas Street and the neighboring ones, located near the Jacarepagua auto race course. A careful watch will be maintained for the next three months and mosquito control will be undertaken if new cases appear.

Old Problem

The occurrence of malaria in Rio is nothing new, and some years ago between 200 and 300 cases were reported brought in each year. With the reduction of the malaria area in Brazil in recent years, the number has dropped, and according to the SUCAM, the malaria statistics are valid because the patients are invariably hospitalized and reporting of the disease is compulsory.

Mr Pelasio Parigot denied that three cases of the disease had occurred in the city, as was reported. "We do not know about presumed cases in Barra da Tijuca and Leblon, and there is no record of them at any hospital or health station." The only case involved student Elizabeth Vianna, who went to the Status Clinic in Marechal Hermes, and then to the SUCAM Health Station at No 461 Honorio Street in Cachambi.

"This was a case in the third, benign phase, caused by the protozoa plasmodium vivax, which invades the red corpuscles, destroying them and releasing toxins. The period of corpuscle destruction is that in which fever attacks occur."

No Secrecy

Mr Palasio Parigot said there is no secret about the case as far as the SUCAM is concerned, and the visit paid by health agents was a routine measure. He said that health representatives take medicine to the home of the patient and verify personally

that it is taken. "Often patients take just the first dose of medicine (there are seven), and when they improve, they fail to take the others. They throw the medicine out. The problem is that in these cases the illness is not cured, but merely incubated."

As to the carrier mosquito, he said that it is practically universally present and impossible to eliminate, "for ecological reasons, among others." He did not think the proliferation of mosquitos in the Jacarepagua Lowlands was related to the intensive clearing in the region, and he said that there are many swamps and lagoons in the area where the mosquitos breed. When a number of cases of the disease are reported, the SUCAM undertakes a campaign against mosquitos in residences in order thus to prevent the spread of the disease.

Study in Jacarepagua

Brasilia--The temporary superintendent of the SUCAM, Mr Pedro Tauil, has announced that in order to establish whether a case of malaria reported in Rio developed there or was brought in from the endemic area in the Amazon region, the SUCAM is making an active survey in the Jacarepagua region in an effort to find other persons suffering from the disease. However, not a single new case has been found to date.

The epidemiological study will continue for three months, but it is known that student Elizabeth Maria Vianna visited places other than Rio, which makes identification of the probable site of infection difficult. According to Mr Pedro Tauil, the Anopheles mosquito, the malaria vector, has only been eliminated in Rio Grande do Sul, Brasilia and the Fernando de Noronha Territory.

Danger From Other Areas

The threat in the areas receiving newcomers is that someone infected with malaria, or chills and fever, as it is popularly known, who has been bitten by an Anopheles mosquito will arrive from the Amazon region where the disease is endemic, and a source of malaria will thus be introduced. This may well have occurred in the case of Elizabeth Vianna, according to the SUCAM.

The most recent entomological studies made in Rio by the SUCAM, in particular in the Jacarepagua area, show a low mosquito density, but even so, the body has ordered further studies in the region.

This year centers of malaria were eliminated in Minas Gerais, Pernambuco (100 cases) and Sergipe (about 60 cases). These areas, in which the outbreak was eliminated in only 15 days, run the risk that the disease may be reintroduced with the arrival of infected persons from the endemic region, because of the existence of the Anopheles mosquito in these states.

Mr. Pedro Tauil stated further that the reports to the effect that the SUCAM is not prepared for a new outbreak are in error.

"The SUCAM is properly prepared to spray all homes with insecticides to control malaria."

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CSO: 5400

BRAZIL

BRIEFS

DIPHTHERIA IN CAMPINAS--Since the first case of diphtheria was reported in Campinas last Friday, a little boy of 3 has died and 3 other children have been admitted to the isolation ward at the Alvaro Ribeiro Hospital. Yesterday, a municipal holiday, regional health division technicians continued their search for the source of the disease, but they have already set aside the possibility of an epidemic, since all of the patients are related and were in frequent mutual contact in the past 2 weeks. The patient who died was Daniel de Paulo Ribeiro, who died of asphyxiation due to diphtheric blockage in the throat. The other children were infected by the mother of the little boy, Zilda de Paula Ribeiro. Although she had developed a natural immunity against the bacillus, she became a carrier, in this case, infecting her children and a niece. None of them had had the triple vaccine, supposedly compulsory, which guarantees protection against diphtheria, tetanus and whooping cough. The health study will continue among the neighbors and schoolmates of the infected children, but the technicians believe it is unlikely that there will be further reports of diphtheria within the region. The 10 telephone lines of the Regional Health Office (DRS-5) in Campinas have been disconnected by the TEL&SP. The penalty was implemented "because of continued nonpayment of the monthly bills due," according to an enterprise spokesman. The total debt owed exceeds 800,000 cruzeiros. The director of the body, Denir Zamariolli, refuses to discuss the matter, although currently involved in a vaccination campaign the results of which have been very poor. Only 2,500 children were vaccinated at the stations located in the 83 municipalities under the jurisdiction of the DRS-5, with a population of 3.8 million inhabitants. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 9 Dec 80 p 18] 5157

PRONAN APPROVAL PENDING--The draft of the Third National Food and Nutrition Program (PRONAN), to be launched in 1981, is awaiting approval of the basic guidelines by President Figueiredo, to whom the outline of the program will be submitted during his next meeting with Minister of Health Waldyr Arcoverde, within 10 days' time. As the Ministry of Health budget has not yet been approved, the technicians drafting the document are still unable to know what resources will be allocated to the Third PRONAN for the period 1981-1985. For the time being, the National Food and Nutrition Institute (INAN) is defining the target population for the Third PRONAN, and in conjunction with the EMBRATER [Brazilian Rural Extension and Technical Assistance Enterprise] and the Farm Supply Secretariat is establishing a specific policy for each basic producer for the rice, beans, milk and cassava required because of the decline in the available supply of each of these products per capita. "It is not possible to pursue a very broad program when the main foodstuffs are imported," technicians in the sector have observed. They say that

the conclusion of the project will depend above all on the incentives the government provides for production. One of the ideas is to extend the supply program being pursued in Recife as an alternative to dispensing products free to 10 more cities in the Northeast, as well as the establishment of dairy basins in the large urban centers, also beginning in the Northeast. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 7 Dec 80 p 36] 5157

TYPHOID FEVER IN ALAGOAS--Maceio--The number of persons hospitalized in this city for typhoid fever, which has already caused the death of 8 persons in the municipality of Maravilha, 270 kilometers from the capital, has increased by 6. The deputy governor of Alagoas, Theobaldo Barbosa, who is concerned about the situation, has asked the state health secretariat to dispatch vaccines and two more tank cars to supply the municipality with water, since because of the drought the population has been forced to drink water from the clay pits. Only 1,200 of the 11,000 inhabitants have been vaccinated by the health secretariat. Prefect Maria Jose Carvalho (PDS [Social Democratic Party]), who reported the outbreak to the deputy governor, said that the disease has been a greater problem than the drought faced by the municipality since the beginning of the year, one of the most severe in the past 10 years. The acting health secretary, Goncalo Doria, is following the development of the disease and the patients hospitalized in the capital (Tropical Disease Hospital). If an epidemic is declared, he will ask the Ministry of Health for aid. Prefect Maria Jose Carvalho blames the lack of treated water, forcing the population to consume water from the clay pits, for the appearance of four cases of typhoid fever and eight deaths in his municipality. [Text] [Rio de Janeiro JORNAL DO BRASIL in Portuguese 14 Dec 80 p 31] 5157

MEASLES STRIKES INDIANS--The National Indian Foundation (FUNAI) announced yesterday in Brasilia that an outbreak of measles among the Cintas-larga Indians, living in the Aripuana reserve in Rondonia, is under control. The illness struck 30 Indians, including children and adults, of whom 3 died. In a press release, the FUNAI announced that the sick Indians were transferred to a hospital in the city of Cacoal as soon as the measles epidemic was identified. According to the report, the rest of the tribe is being cared for by a mobile health team sent from Porto Velho. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 12 Dec 80 p 10] 5157

POLIO IN CAMPINAS--Three cases of poliomyelitis--two in Campinas and one in Jundiai--have been reported by the fifth regional health division of the state since the last mass national vaccination campaign against the disease in August. The director of the fifth division, Denir Zamariolli, regarding the index as "alarming," since these two neighboring cities contain together approximately a million inhabitants, announced a new mass vaccination campaign for the month of December in those cities, and also in Piracicaba, which receives a heavy flow of migrants. Simultaneously, the division plans to encourage the administration of Sabin vaccine in 80 municipalities in the Campinas region as well, as a booster for those children who did not take the third dose, and an opportunity for those who have not yet had any of the three doses for which the Ministry of Health program calls. The campaign for administering Sabin vaccine in Campinas, Jundiai and Piracicaba will begin on 2 December and will last for eight days. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 26 Nov 80 p 13] 5157

VACCINE PRODUCTION LIMITED--Recife--National production of vaccine against polio-myelitis has been greatly limited due to a lack of an adequate supply of monkeys for the work done in the laboratories, Minister of Health Waldir Arcoverde has announced. Concerning the immunization campaigns against diseases such as polio and measles, he said that a domestic bid was awarded for the purchase of all of the vaccines for the coming year: 90 million doses of vaccine against infantile paralysis, 45,000 for measles, and 35 [sic] of triple vaccine (against whooping cough, diphtheria and tetanus). He added that the Oswaldo Cruz Institute in Rio de Janeiro has been diluting and bottling measles vaccine, which cannot be done with the Sabin vaccine. "We want to develop doses against polio with the same methodology. However, there is a great limitation on the production of these vaccines in Brazil, having nothing to do with human resources or technology, but rather the shortage of monkeys. This vaccine is developed in the kidney of the African Cebus (Pithecia) monkey. We import these monkeys, but unfortunately reproduction has lagged." [Text] [Rio de Janeiro JORNAL DO BRASIL in Portuguese 22 Nov 80 p 8] 5157

CSO: 5400

BRIEFS

VACCINATIONS FOR WOMEN, CHILDREN—Mekele—Vaccination against six communicable diseases was given to 9,855 children and pregnant women here and in Maichew town of Tigray Region during the last six months, the General Manager of the Regional Health Office disclosed. In the vaccination campaign carried out in Makale from April to September, 1980 and in Maichew from May to October the same year, 4,496 children and 378 pregnant women and 1,763 children and 218 pregnant women were given vaccination in the two towns respectively. The campaign conducted in three rounds was against six diseases including diphtheria, measles, whooping cough, tuberculosis and polio. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 3 Dec 80 p 8]

CSO: 5400

GHANA

BRIEFS

FOUR CHOLERA DEATHS REGISTERED—An out-break of cholera has hit Asiakwa near Kibi, claiming four lives within six days, it was disclosed yesterday. According to Mr S. O. Gyimah, technical officer-in-charge of the Medical Field Unit in Akim Abuakwa District, several victims have been admitted to the Akim-Tafo hospital following the out-break which was detected last Thursday. He said, so far, only one of the deceased, 80-year-old Madam Afua Nyantekyiwaa, had been identified. He said a medical team headed by Mr S. Y. Osei, Eastern Regional Officer in charge of the Field Unit, had visited Asiakwa to attend to the sick and educate the people on personal hygiene--GNA. [Text] [Accra DAILY GRAPHIC in English 10 Dec 80 p 8]

CSO: 5400

ANTIMALARIAL DRIVE LAUNCHED IN MADRAS

Madras THE HINDU in English 26 Nov 80 p 1

[Text]

Yet another crackdown on malaria in the city has been launched by the Health authorities. This time, it is an intensive house-to-house spraying of Pyrethrum, a powerful insecticide, with specially acquired portable fogging machines.

Two malaria prone divisions in North Madras were taken up first for this intensive operation. According to an initial assessment, there was a significant reduction in the incidence of malaria in these areas following the spraying by a health squad.

Dr. B. L. N. Raj, Health Officer, told "The Hindu" on Tuesday that it was a great problem to tackle the malaria-causing Anopheles Stephens which were found to breed conveniently in inaccessible places like walls, cisterns and overhead tanks.

The fogging squad with pyrethrum mixed in light diesel oil

moves first the houses a little before the fall of dusk when the mosquitoes are on their attacking spree. The operation is carried on till 8 p.m., covering as many houses as possible. "It takes anything like 15 days to cover one division," Dr. Raj said.

George Town, Park Town, Narsapuram, Vyasarpadi, Chintadripet, Triplicane and Thousand Light areas have been identified as vulnerable areas for malaria. These places account for over 75 per cent of the cases in the city.

Dr. Raj said the insecticide used would be just the minimum to kill the mosquitoes and the fog would not harm the people. However they had instructed the residents to keep the food and drinking water covered before the operation started.

Three sophisticated giant thermo-fogging sprayers, acquired last September, were put into use only for four months. This machine, mounted on a truck,

was taken round to all the streets with Malathion, another powerful insecticide, to kill mosquitoes.

The sprayers developed some trouble and they could be repaired only now. The State Health authorities, who had taken back the sprayers for repair, are still to hand them over to the Corporation.

A view is expressed that malaria-causing mosquitoes could be knocked down by simultaneously using the thermo-fogging of the environment and the intensive spraying indoors using the portable machines. The Corporation proposes to acquire 25 more portable sprayers.

When his attention was drawn to a sudden rise in mosquito nuisance in the city, Dr. Raj attributed this to the recent rains and said the anti-malaria operation now stepped up would also destroy other varieties of mosquitoes.

INDIA

BRIEFS

CHOLERA EPIDEMIC--New Delhi, 5 Dec--A cholera epidemic has claimed 52 lives in Saurashtra area of Gujarat State on the western coast during the past one month, reports reaching here Thursday said. The reports said there had also been incidence of gastro-enteritis. Nearly 4,000 people were afflicted still with the two diseases, health officials in the state administration were quoted as saying.--
NAB/AFP [Text] [Rangoon THE WORKING PEOPLE'S DAILY 6 Dec 80 p 5]

CSO: 5400

BRIEFS

DENGUE FEVER IN PALEMBANG--3314 volunteers summoned to fight dengue fever. From January to October, 471 victims and 35 deaths reported. Dr Sofyan Mukti MSc, head of the Palembang Municipality DKK (City Health Service) said on Monday, that the spreading of dengue fever in Palembang is quite serious. Since the beginning of the year to 17 September, there have been 342 cases reported and 27 of the patients have died. Then from September to 13 October there were 129 more victims and 8 deaths. The mayor of Palembang together with approximately 2,000 volunteers distributed 50 grams of abate to 120 households. Abate is the medicine (substance) used to destroy the mosquito larvae that causes the dengue fever. Dr Sofyan said that the DKK (Health Service) had its own spraying unit and one team to do the spraying. But he sees the dengue fever situation in Palembang as very serious and therefore the measures that have been carried out to now are no longer effective. Sofyan said that the Department of Health together with the Department of Agriculture, plan to spray the mosquitoes from the air in the near future. The volunteer team immediately placed the 50 grams of abate which was divided among the residents, in the places where they stored their water. The first case of dengue fever in Palembang was noted in 1975 and there was just one case. In 1976, there was an increase and in 1977-78 it dropped after the spraying of 20,000 hectares. Dengue fever rose again in 1979 with many more victims. [Text] [Jakarta KOMPAS in Indonesian 14 Oct 80 pp 1, 9]

CSO: 5400

IRAN

BRIEFS

SMALLPOX IN TEHRAN—Tehran press reports said tonight that a smallpox epidemic was widely spread in Tehran, Esfahan and Qom. Citing health sources, the reports said that several cases of typhoid and rabies were reported in Tehran and in other areas and towns. Iran's reports have recently indicated that several epidemics were widely spread in Tehran and in other Iranian areas and towns, particularly typhoid and cholera. [Excerpt] [JN212153 Baghdad Domestic Service in Arabic 2100 GMT 21 Dec 80]

CSO: 5400

CONJUNCTIVITIS REPORTED IN WEST COAST STATES, BORNEO

Disease Under Control

Kuala Lumpur NEW SUNDAY TIMES in English 16 Nov 80 p 5

[Excerpts]

IPOH, Sel. — The conjunctivitis situation in Perak remains unchanged with an average of 410 cases reported every day in the various hospitals in the past three days. The Perak State Director of Health and Medical Services, Datuk Dr. Gurmukh Singh, today said there were 419 cases on Wednesday, 448 cases

on Thursday and 376 cases yesterday reported by Perak hospitals.

In Kangar, 2,000 people were treated at the Kangar District Hospital in the last three-and-a-half months.

The Perlis Director of Medical and Health Services, Dr Haji Ismail bin Mohammed Noor, said that from Nov. 1 to 6 alone, the hospital treated 700 con-

junctivitis patients. The number of patients treated in October was 851.

He said the disease was now under control.

Incidence in Borneo

Kuala Belait BORNEO BULLETIN in English 22 Nov 80 pp 1, 32

KUCHING — Medical authorities in East Malaysia have their fingers crossed that an epidemic of "red eye" disease — conjunctivitis — which has hit many towns, might be coming to an end.

Cases reported from infected areas of Sarawak and Sabah generally showed a drop for the first fortnight of this month. There are thoughts the outbreak may have reached its peak last month.

In neighbouring Brunei, officials weren't as optimistic.

This week all public swimming pools were closed in Bandar Seri Begawan, where new cases of the disease are being reported at the rate of 25 a day.

Case numbers of the disease became significant in June.

That month the Sarawak General Hospital in Kuching had 542, rising to 615 in July, 647 in August, 646 in September and 1,017 last month. But the encouraging news is that the hospital had only 523 cases for the first two of November.

Bandar Seri Aman, Miri and Limbang are other places where latest statistics indicate a falling.

Bandar Seri Aman had 135 cases in September, 157 last month, but only 50 for the first fortnight of this month. Miri had 80 in August, 88 for September, 131 for October but only 61 for the November fortnight.

The figures for Limbang were 72, 94, 114, 40.

In other towns the disease may have peaked earlier.

The government's Long King's Hospital in Sibu had 451 cases in July, 457 August, 504 September, but the figure dropped to 343 for last month and was further declining with 215 for the Nov. fortnight.

Saribas was in a similar position — 109 August, 195 September, 90 October, 45 for the recent fortnight.

In Sibu, although no statistics are available, medical spokesmen said the trend also appeared to be downward, notably in Sandakan.

MARGOSA OIL IDENTIFIED AS CAUSE OF REYE SYNDROME

Kuala Lumpur NEW STRAITS TIMES in English 25 Nov 80 p 1

[Text] PETALING JAYA, Mon. — Margosa oil, known in Tamil as *Vape ena* and extensively used by other South-East Asian communities as a home cure for numerous minor ailments, can cause brain damage and death in children.

University Hospital Director Dr. Haji Abbas bin Haji Alias, who issued this warning today, advised parents not to consume the oil or administer it to children.

He said studies by two doctors at the hospital also identified the oil as an important cause of the Reye Syndrome which occurs largely among the Malaysian Indian community — a condition where there is acute onset of damage to the liver, the kidneys and the brain.

Since 1977, 18 children, mainly infants and all Indians, have been admitted to the hospital with symptoms of poisoning within two to four hours of consumption: between 10 to 20 milligrams of the oil, which is derived from a medicinal plant *Andropogon indica* of the order *Rutales*.

The oil, a deep yellow in colour with an odour reminiscent of garlic, is also used in Malay and Thai herbal remedies, and is known as *Minyak Intaran*, *Mimba* or *M.Sadu*.

The symptoms include intractable or persistent convulsions or fits, drowsiness and respiratory difficulty.

"Despite intensive care, two of the children have died and one is left with permanent brain damage," he said.

Acting head of the hospital's Paediatric Unit,

Associate Prof. Daven-draalingam Sianiah, who conducted studies on the oil with Dr. G. Baskaran of the Medical Faculty's Veterinary Department said that if not for the very intensive care, the other cases admitted would also have died.

Prof. Sianiah said in one case, an infant had been administered margosa oil from a few days after birth.

"External use of the oil is all right, but consuming it is highly dangerous," he added.

Drs. Sianiah and Baskaran studied the effects of the oil on mice and found it to be toxic, producing identical symptoms.

Samples of the oil from different retailers were found to have toxic effects on the liver, kidney and brain.

From the studies on mice and biopsies on children, the two doctors believe that ingestion of the oil is a cause of Reye Syndrome, a disease identified relatively recently and the cause of which has not yet been established.

Prof. Sianiah said that although cases had only been recognised at the University Hospital, they believed that this was only "the tip of the iceberg".

"We believe that many cases are being missed and mistaken for other diseases, not only in Malaysia but in other countries including India, Sri Lanka and Indonesia, where the oil is also used," he said.

MOZAMBIQUE

BRIEFS

CHOLERA OUTBREAK--Jorge Cabral, national director of Preventive Medicine, has told the Mozambican news agency AIM that the cholera outbreak in a children's clinic in Maputo Central Hospital has been brought under control. He said that 68 cholera cases had been detected. He also said that another 10 cases had been detected in a number of Maputo residential areas. There have been a few cases of cholera in Nampula Province, northern Mozambique, particularly in Memba and Erati Districts. Preventive measures to eliminate the disease are under way. [LD280406 Maputo Domestic Service in Portuguese 1900 GMT 27 Dec 80]

CSO: 5400

GOVERNMENT ACTION SOUGHT TO AVERT RUBELLA EPIDEMIC

Christchurch Demand

Christchurch THE PRESS in English 21 Nov 80 p 1

[Text]

Health reporter

Parents of deaf children in Christchurch are demanding urgent Health Department action to avert another serious epidemic of rubella (German measles) like the one that caused 300 cases of deafness in young children in 1964-65.

Congenital rubella can cause brain damage, heart deformities, and hearing and vision loss in babies. It arises from the mother contracting rubella during pregnancy.

Four suspected cases have been reported in babies aged under one year in Christchurch in the last six weeks.

Representatives of the Federation for Deaf Children said yesterday that they were "outraged" at the way in which the

Health Department was approaching what the parents feared was the start of another rubella epidemic.

A federation spokeswoman Mrs Marie Gunn, said that the department seemed thoroughly confused about how to handle what many of its officers suggested privately was a "health time-bomb".

"We have been told by people in the head office that it is up to parents' groups to do something, as departmental officers' hands are tied. We are determined to ensure that the problems we have had to face as result of the last epidemic are avoided. Sadly it will be far too late for many," Mrs Gunn said.

The department had adopted a half-hearted and belated stand on immunis-

ing against rubella, Mrs Gunn said.

"There is no programme to screen young children to see if they are affected. So often detection is left too long. The lack of a consistent programme of public education on rubella has meant that thousands of unborn children are at risk," she said.

The principal of Van Aach College (formerly the School for the Deaf) at Sumner, Mr Sefton tielt, said he shared the federation's concern.

"We know from some medical people in Christchurch that the incidence of rubella is increasing," he said.

"The Health Department has no unified medical service which automatically screens all pre-school children at an early age. Early detection leads to a

greater chance of normal rehabilitation for an affected child," Mr Bartlett said.

The Acting Minister of Health (Mr Adams-Schneider) said last evening that he had been in touch with federation representatives in Auckland.

"The epidemiology advisory committee of the Board of Health will meet on November 27 and is considering rubella. The federation has been asked to make written statements to the committee which will fully consider them," Mr Adams-Schneider said.

"Dr Campbell Begg, director of the department's Health Promotion Division, has agreed to meet federation representatives before the November 27 meeting to discuss the issue."

Outbreak in Auckland

Wellington THE EVENING POST in English 3 Dec 80 p 25

[Text]

AUCKLAND, Dec 2, (PA). — Auckland has been hit by an outbreak of congenital rubella (German measles).

Health Department officials said the result could be the birth of an increased number of handicapped children in mid-year although most cases reported by Auckland doctors recently have occurred in primary school children, almost inevitably some of those youngsters would come into contact with pregnant women who are not immune or vaccinated.

The last major epidemic of rubella in New Zealand - in 1964 left hundreds of children with hearing, sight and heart defects, or intellectually handicapped.

The director of the health promotion division, Dr Richard Campbell Begg, said there would be surveillance of all babies born next year whose mothers may have caught rubella.

"We are drawing the attention of doctors, hospitals and health workers to the need to check newborn babies for congenital defects."

Dr Campbell Begg said an upsurge in rubella had been noticed throughout the country, but it was not known how many pregnant women had been affected.

He emphasised the importance of any women likely to become pregnant over the next 12 months having a blood test to see if immunisation was necessary.

Any pregnant woman who believed she had been in contact with the disease should see her doctor immediately, he said.

CSO: 5400

BRIEFS

MEASLES, SMALLPOX VACCINATIONS--A total of 21,841 infants between the ages of two years and three months, were vaccinated against polio, measles, small pox and other common paediatric diseases during the first phase of the expanded immunisation programme which ended recently in the Tudun-Wada Local Government area, Kano State. Similarly, 7,586 mothers were also vaccinated against tetanus during the immunisation exercise. These facts were contained in a release issued recently and signed by the Head of Medical and Health Department of the Tudun-Wada Local Government area of Kano State, Alhaji Alfa Sidi Gumel. The release stated that during a similar exercise earlier this year in the area, about 5,186 people were vaccinated against Cerebro-Spinal-Meningitis (CSM) and cholera at Burum Burum village, while a total of 14,105 children between the ages of five and six months were immunised against measles in the area. According to the release, efforts are being intensified by the local government area to eradicate infectious diseases in the area and advised the people of the area to report any outbreak of disease so that prompt action could be taken to contain it. The release also advised the people of the area to maintain high standard of personal hygiene. The release, however, indicated that a total of 4,614 births and 972 deaths were recorded in the area between January and October this year. [Text] [Kaduna NEW NIGERIAN in English 16 Dec 80 p 7]

LEPROSY CONTROL--The Federal Government is now set to control leprosy in the country in order to eradicate it. To this end, the report submitted by the National Leprosy Control Committee, set up by the government, had been taken into consideration in making proposal for the fourth National Development Plan Period (1981-85). The Minister for Health, Mr. D.C. Ugwu, who made this known in a message to mark the Leprosy Week in the Bendel State capital, Benin, added that the programme would also co-ordinate all efforts being made in the country to control and eradicate the disease. He blamed the non-functioning of some leprosia in the country on lack of funds and qualified staff and announced that support would be given to both the Leprosy Research Unit at Uzuakoli and the Leprosy Research Centre, Zaria, in their efforts to eradicate the disease. The Minister commended the Bendel State wing of the Leprosy Control and Relief Association (LECRA) for its dedication to the eradication of the disease and rehabilitation of the patients. [Text] [Enugu DAILY STAR in English 16 Dec 80 p 3]

TOTAL CHOLERA CASES NOW 642

Johannesburg THE CITIZEN in English 11 Dec 80 p 2

[Article by Marilyn Cohen]

[Text] ANOTHER 15 cases of cholera were confirmed yesterday, bringing the total number of people affected by the disease to 642.

Four of the cases had been reported in Lebowa and 11 in the Eastern Transvaal lowveld near the Kaap River — the area which has "been giving most of the problems since the beginning of the outbreak," Dr J Gilliland, Deputy Director-General of Health said.

Thousands of people are expected to flood into the affected areas to visit their families over the Christmas holidays and Dr Gilliland said every precaution was being taken to ensure they would know how to cope with the disease.

"Our anti-cholera campaign is getting the full support of all the Black radio stations; we've sent people to talk to teachers and pupils at the Black schools; and literature on the disease is being distributed at petrol stations along the routes into the particular areas."

The Department of Health was "doing everything in its power" to find and correct

contaminated water supplies," he said.

There have been no more reported cases of cholera from the Witwatersrand after confirmation of the disease in a Soweto man earlier in the week.

CSO: 5400

TANZANIA

BRIEFS

CHOLERA OUTBREAK--Lushoto--Eight people have died of cholera and 14 others have been admitted to the (Malola) Division Hospital in Lushoto District following a fresh outbreak of the disease in the district. The district anti-cholera committee said the situation is reported to be critical in (Msando), (Unga) and (Magasai) villages. The committee said the situation has worsened because of heavy rains which bogged down medical personnel from Lushoto to reach the affected villages. It said so far the disease had claimed 12 lives since its reoccurrence in the district at the end of last month. [Text] [LD260256 Dar es Salaam Radio in English to East Africa 0400 GMT 24 Dec 80 EA]

CSO: 5400

ZIMBABWE

BRIEFS

CHOLERA VACCINE SHORTAGE--Bulawayo--United Bulawayo hospitals have had one delivery of cholera vaccine in the last 10 days but by Wednesday this week it had all been used, a spokesman said yesterday. The batch of vaccine that arrived last week was enough for about 350 doses but there was high demand from people planning Christmas holidays outside the country, particularly in South Africa where more than 600 cases of the disease have been reported since the start of the current outbreak there. Vaccination against cholera is not mandatory for entry into South Africa and is not required for entry into Zimbabwe. People travelling from South Africa to Zambia would, however, require a current vaccination certificate for entry into that country, the spokesman said. [Text] [Salisbury THE HERALD in English 20 Dec 80 p 11]

CS0: 5400

HOG CHOLERA CONTROL PROGRAM INSTITUTED

Brasilia CORREIO BRAZILIENSE in Portuguese 26 Nov 80 p 6

[Text] President Joao Figueiredo signed a decree establishing the Program to Combat Hog Cholera yesterday. The plan will be executed throughout the national territory by the National Agricultural Protection Secretariat at the Ministry of Agriculture. The project calls for the mobilization of resources and the establishment of policy norms for research on and the battle against this disease, in accordance with the priorities identified in the selection of areas with greatest importance in hog breeding.

The program, which will require federal resources of about 453,248,000 cruzeiros for its execution, will be implemented by means of coordination between the Ministry of Agriculture and federal, state and municipal bodies involved with the problem, as well as production cooperatives and other private bodies. The functions of supervision and normative guidance will be carried out by an advisory council headed by the National Agricultural Section secretary, and including the directors of the supply, animal production, animal health protection and animal product inspection secretariats, as well as the National Animal Reference Laboratory and the national coordination office of the PCPS [Program to Combat Hog Cholera].

The advisory council will have, on the central level, the technical and administrative support of a national coordinating office of the PCPS, which will, in addition to organizational functions, have the duty of following and assessing the activities carried out. The establishment and development of the program on the state level will be effected by regional coordination offices under the jurisdiction of the national office.

5157

CSO: 5400

BRAZIL

FUNDS ALLOCATED FOR HOG CHOLERA CONTROL PROGRAM

Brasília CORREIO BRAZILIENSE in Portuguese 9 Dec 80 p 5

[Text] The Ministry of Agriculture, through the National Crop and Livestock Defense Secretariat, will spend 85 million cruzeiros on the campaign to control hog cholera in the states in the southern part of the country, both its classic form and African swine fever, and to eradicate the latter disease in a maximum of 3 years. Agricultural technicians expressed certainty that with these measures, domestic producers can again compete on the domestic and foreign market with products of "known quality."

The allocation of 85 million cruzeiros is to be made available beginning in January of next year, and the program will be developed in gradual and progressive form, initially covering the sectors in the country where hog breeding is best developed technically. Thus the program will begin in the southern region, with an allocation of 6.25 million cruzeiros for Parana and 10.7 million each for Rio Grande do Sul and Santa Catarina.

Production

Brazilian hog breeding shows a profitability rate of 56 percent on a national average. Thanks to more rational breeding methods in the states in the South, Parana has a 71 percent rate, with 81 percent for Rio Grande do Sul. The state of Santa Catarina has an average rate of 83 percent, with a rate of 130 percent found in the industrial hog-breeding regions in the western part of the state.

According to technicians at the ministry, the campaign to control hog cholera meets the need for the immediate introduction of a systematized plan, dealing simultaneously with the two forms of the disease, wherein sanitary measures apply without differentiation to both forms, except for the possibility of using vaccine for the immunization of animals against the virus which causes classic hog cholera.

The program, calling for the direct expenditure of 57.25 million cruzeiros through the National Crop and Livestock Defense Secretariat (SNAD/DFAS), and an indirect expenditure of 27.75 million through agreements, is further designed to prevent and reduce the incidence of the disease in the area and guarantee the Brazilian hog breeder increased hog production and productivity.

Strategy

Within the framework of the strategic actions in controlling hog cholera, the Ministry of Agriculture expects that constant health supervision will be exercised at the ports, airports and frontier posts with a view to preventing the entry of live hogs or hog products coming from areas where the disease exists; systematic vaccination against classic hog cholera at the expense of the hog breeder, and subsequent official control and identification; establishment and elimination of centers through properly trained and equipped field units, consistent with the provisions of the procedural norms for controlling hog cholera.

5157

CSO: 5400

ETHIOPIA

VACCINATIONS FOR ANIMAL DISEASES

Gondar Program

Addis Ababa THE ETHIOPIAN HERALD in English 5 Dec 80 p 6

[Text] Vaccination against various animal diseases will be given to 1,239,667 head of cattle in Gondar Region during the third round economic development and cultural campaign, according to the Regional Animal and Fishery Resources Development Office. Comrade Misgina Ezaz, acting chief of the Regional Animal and Fishery Resources Development Office, disclosed that during the second round of the campaign the office has hit 75.7 percent of its target. He said that during the last campaign year 640 selected sheep, poultry and head of cattle and 40 beehives have been distributed to service and producers' cooperatives. He added that the office will distribute 1,058 selected sheep, hens and head of cattle and 44 beehives this year.

Assayita Program

Addis Ababa THE ETHIOPIAN HERALD in English 2 Dec 80 p 8

[Text] The North-eastern Ethiopia Livestock Development Project is reported to have vaccinated a total of 30,506 cattle and pack animals against various animal diseases in Mille District of Awssa Province, Wollo Region. The vaccination was carried out through a 3-month long campaign from July to September 1980.

CSO: 5400

VACCINATIONS OF CATTLE FOR RINDERPEST REPORTED

Kano State

Kaduna NEW NIGERIAN in English 4 Dec 80 p 9

[Article by James Akande]

[Text]

ABOUT 92,071 head of cattle were vaccinated against rinderpest and similar cattle diseases in Tudu-Wada Local Government area of Kano State, between April and September this year.

The Kano State Ministry of Home Affairs and Information bulletin, stated that similarly, about 2,711 birds were also vaccinated against various diseases in four of the veterinary clinics in the area during the same period.

The bulletin quoted the Head of the Department of Agriculture and Natural Resources in the area, Alhaji Musa Mohammed, as saying

that the local government had purchased drugs and equipment worth 14,000 Naira for the vaccination exercise.

According to the bulletin, Alhaji Musa Mohammed disclosed that the vaccination exercise was still in progress and that sheep, goats, horses, cats and dogs would also benefit from the programme.

The bulletin further stated that the Head of the Department commended the state government for abolishing community and jagali taxes and observed that it had helped to elicit the co-operation of the Fulani herdsmen, for the smooth implementation of the programme.

Sokoto State

Kaduna NEW NIGERIAN in English 6 Dec 80 p 7

[Article by Ibrahim N. Salihu]

[Text]

ABOUT 200,000 out of 2,500,000 head of cattle have so far been vaccinated by the Veterinary Division of the Sokoto State Ministry of Agriculture since the outbreak of rinderpest in the state last September.

A release signed by the Commissioner for Agriculture, Alhaji Isa Kangwa, the Motorway Argungu, said this is in spite of the necessary

sanitary measures adopted to bring the disease under control.

He outlined the measures which include checking of all cattle movements with particular attention to trade cattle.

The commissioner also reported that there are now 89 permanent and 130 temporary vaccination centres operating in the state, in addition to the strict quarantine measures

adopted for affected cattle.

Alhaji Isa Kangwa said while provision of vaccines and vaccination facilities to vaccination camps has not been halted, cattle Fulani have also been enlightened on the dangers of not restricting the movement of their cattle. The Fulani have also been told to present their herds for vaccination and collect certificates for them.

CAMPAIGN AGAINST TSETSE FLY DESCRIBED

Salisbury THE HERALD in English 15 Dec 80 p 6

[Text]

ABOUT one-fifth of Zimbabwe was now infected by tsetse flies because operations against them were interrupted during the war, the chief glaciologist with the tsetse and trypanosomiasis control of the Ministry of Agriculture, Mr Gerry Davison, has said.

"Before the war our fight against tsetse flies was proving successful and we had got complete control of the situation in the south-east corner of the country," he said.

"We had even got as far as 80 km into Mozambique a few years ago but now a tsetse infected area has developed in the south-east between Mt Selinda and the Save River in the south."

In the north the game parks had been the areas that had tsetse flies, but since the interruption of control operations the line marking tsetse infected areas had moved south.

In parts of the north-east the flies were prevalent and they had caused large losses of cattle in the TLA.

"There are also pockets along the north where cases of infected cattle have been reported by our inspectors when they visited the TLA during dipping sessions.

"We are not sure whether these areas are actually infected. An explanation for the detection of such cases could be the payment of lobola debts.

"Cattle which are used for paying lobola may have come from tsetse infected areas. We have sent some of our teams to look into the reported cases and the inspectors visit the areas every month.

"Their visits will help to dispel or confirm the presence of tsetse flies in these areas south of present tsetse boundary," said Mr Davison.

Teams will be sent into the area into the south-east to start work against the flies later this month. The south-east is an important area because this is the heart of the beef industry.

Although the tsetse control branch in the Ministry of Agriculture has found a cure for infected animals, it does not prevent further attacks.

Once an animal is treated the carcass is downgraded by the Cold Storage Commission.

Mr Davison said he was impressed by recent talks between the Government and neighbouring countries on how to exterminate tsetse flies.

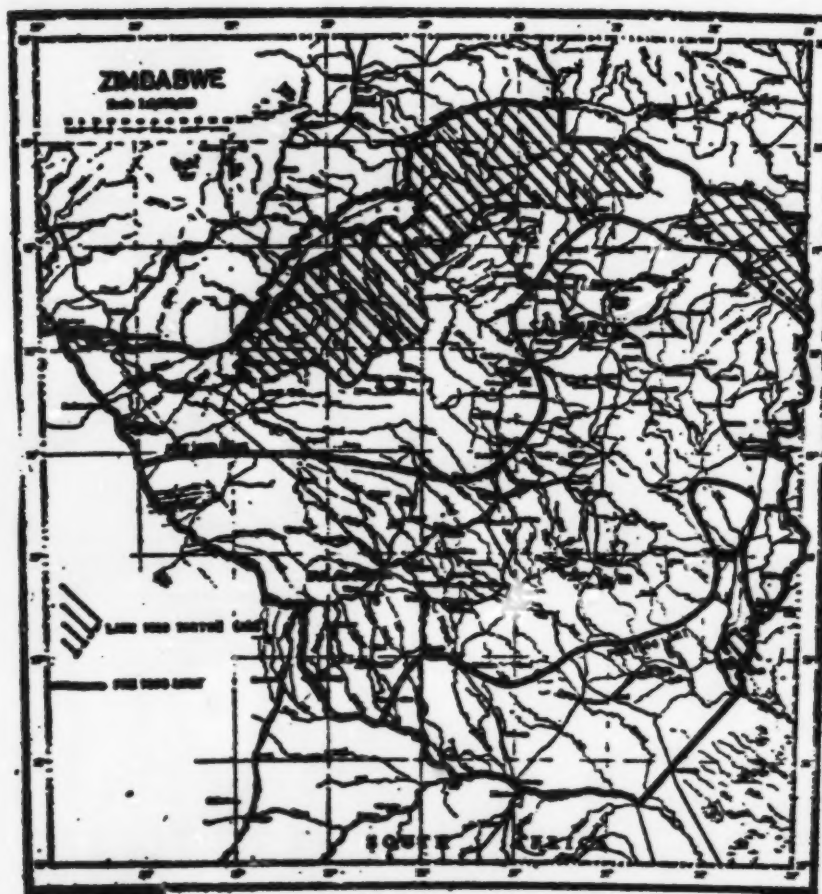
But he said it would be several years' work before they could go into Mozambique and Zambia.

Most of the tsetse areas in Zimbabwe were largely in the game reserves. But the immediate task was to see the line marking tsetse infected areas taken back to where it was before the war.

Decisions must also be made about the effectiveness of the two methods being used to exterminate tsetse fly in Zimbabwe.

Shooting of the host animals and spraying are the two methods now being used.

The shooting of the host animals — elephant, bush pig, warthog and



water buffalo — means the depletion of the game in the national parks along Lake Kariba.

And the use of sprays has its own limitations in that it kills only adult flies and not the pupae. Sprays are also washed away when the rains come.

Mr Davison said the drive to exterminate the flies in the south-east was of more concern to Zimbabwe than to Mozambique. The Mozambicans kept their cattle much farther from the area, but they were also hampered by lack of resources and know-how.

The Zimbabweans suffered from a shortage of funds to combat tsetse fly, but their beef industry was not as developed as Zimbabwe. There was a

potential threat of flies from this country crossing from Urungwe into Zambia.

Mr Davison was optimistic that if a system his department was working on now proved successful it could have the situation under control in two years.

The system is being researched and involves the use of a trap. The trap is erected on a rectangular frame about 1.5 metres high and is covered by a white and black cloth with a rotating drum at the top.

The trap is baited with an on-illu odour. At the moment they are using acetone, but research is still continuing to find a perfect "on-odour".

The odour attracts the tsetse flies which enter

the trap and are guided towards the rotating drum by a funnel-shaped gauge. Once in the drum they are sprayed with a steriliser or are killed.

The method will be put into effect in April when about 100 traps will be set up on Antelope Island on Lake Kariba.

The idea is to sterilise the flies and free them in an infested area to mate with the female flies. Female flies die after they have deposited the pupae.

"If we can catch about 1 percent of flies in six months the tsetse population can be wiped out in a shorter time, perhaps in about two years. But we still have to perfect the method," said Mr Davison.

BRIEFS

MONGOOSE RABIES EXPERIMENT—Mongooses are shunning the baited springtraps set for them in the Bulawayo area by a Salisbury veterinary researcher, Mr Basil Petzer. The traps are baited with raw chicken and eggs but mongooses are viewing the fare with disdain. "There are probably too many beetles and other forms of food in the veld that mongooses prefer," Dr Chris Foggin, head of rabies research at the Government veterinary laboratory in Salisbury, said yesterday. Mr Petzer came to Bulawayo a fortnight ago, and will stay until Christmas on a rabies study. He hopes to trap about 100 mongooses. Mr Petzer said he had seen plenty running around in parklands, gardens and on the commonage, and he had set traps in several areas where rabies cases have occurred. He appealed to motorists who run over mongooses to take them to the veterinary department offices. He needs to establish whether mongoose rabies is caused by a virus different to, and less dangerous than, that which causes dog rabies. [Text] [Salisbury THE HERALD in English 11 Dec 80 p 11]

CSO: 5400

SABOTAGE OF COFFEE FARMS BY PLANE CONFIRMED

PA302240 Guatemala City Radio Mundial in Spanish 1420 GMT 30 Dec 80

[Distributed by Inter-Central American Radio Organization]

[Text] The agriculture minister confirmed during a news conference yesterday the news disclosed on Sunday regarding the sabotage of the coffee plantations along the southern coastline by a light plane which spread rust-infested leaves over Suchitepequez Department. Minister Edgar Ponciano, along with Maj Rolando Archila Marroquin, deputy public relations secretary at the Presidency, explained how, when and where a foreign light plane probably overflew the coffee area and dropped the rust-infected leaves.

Minister Ponciano said the situation is very serious because the area is rich in coffee and the disease can spread. He said the worst thing is that there are more small producers in the area but they are right next to big producers. Ponciano added that this is stupid harassment of our country intended to upset our economy.

He said that it is a well-known fact that coffee is 25 percent of Guatemala's economy and that no fewer than 1 million Guatemalans earn a living from it. He said this is germ warfare which is illegal and banned by the Geneva Convention.

The government, through the army, will take strong action against any airplane or vehicle which tries to do what occurred on 24 December when the rust-infected leaves were dropped from the air. The Inter-Central American Radio Organization inquired in Guatemala whether this means that the air force will down any light plane suspected of conducting such an operation.

Archila Marroquin admitted that that is possible. He said Guatemala is entitled to take any action against unidentified planes overflying our territory.

CSO: 5400

KHAPRA BEETLE INFESTATION FOUND IN SHIP AT AUCKLAND

Auckland THE NEW ZEALAND HERALD in English 3 Dec 80 p 16

[Text]

One of the world's worst pests, a pinhead-sized beetle larva, has been found in a ship at Auckland.

Port agriculture officers at Auckland were warned by their Australian counterparts that an infestation of the khapra beetle had been found in the freighter Nedlloyd Fremantle. The ship was fumigated when she berthed at Auckland a few days ago.

Auckland's regional port agriculture officer, Mr Travis Flint, said the beetle was found in the ship's stores.

It is the most serious

world pest as far as stored food is concerned and has a voracious appetite for rice, lentils, wheat and barley.

It also has an ability to live a year or more without food or water.

Mr Flint said it was the worst infestation of the beetle discovered in New Zealand. Four other cases have been reported over the years.

The Nedlloyd Fremantle was evacuated during the fumigation but was cleared for work yesterday.

CS01 5400

NEW WHEAT DISEASE PRESUMABLY ORIGINATED IN AUSTRALIA

Christchurch THE PRESS in English 4 Dec 80 p 26

[Text]

A new disease of wheat has appeared in New Zealand; it is stripe or yellow rust. Its presence in a crop near Gore was reported to a meeting of the Wheat Research Committee by Dr H. C. Smith, the director of the Crop Research Division of the Department of Scientific and Industrial Research.

Later, Dr J. Hedley, officer-in-charge of the Ministry of Agriculture's plant health diagnostic station at Lincoln, said that the Ministry suggested that farmers should keep an eye open for the disease and if they suspect its presence send specimens of the plant material to their local office of the Ministry.

It is assumed that the spores of the rust have been blown across the Tasman from Australia, where it was found in Victoria in October last year. Dr Smith said that it had been expected in New Zealand after its discovery there.

The rust is caused by a fungus, *Puccinia striiformis*, and appears as orange yellow pustules or more characteristically as stripes on the older leaves of the wheat plant. The stems and ears can also be affected.

Cool, wet weather

favours production of the spores and infection and under these conditions the disease can become epidemic.

The disease is widespread in the wheat growing world and in Britain is regarded as the most serious of the rusts affecting wheat. Under severe epidemic conditions yield losses there in individual crops can be as high as 50 per cent, but over the country as a whole in an epidemic year the average loss is from 5 to 20 per cent.

The chance of containing the disease is not good but it can be controlled effectively chemically as long as the chemical is applied when the first signs of it appear. Under high infestation pressure a further application has to be made within three or four weeks.

A chemical called triadimefon, commonly used against the rust overseas, is available in New Zealand but is not registered at present for use against this particular rust, according to Dr Hedley.

In the longer term the growing of varieties resistant to the disease is a method of combating it and Dr Smith said that a member of the staff of the Crop Research Division, Mr W. B. Griffin, who is at present overseas studying for a doctorate, had

helped an Australian wheat breeder to test Australian and New Zealand wheats in England for resistance to stripe rust.

Dr Smith said that a fairly large number of New Zealand varieties had quite a good degree of resistance to the disease.

The one with the best is Karamu but this variety is not highly regarded for producing milling wheat for baking. Takahe, now most favoured for growing in Southland, and Tiritia, highly favoured for growing there after it has been released for commercial use, are the most susceptible.

The disease was first noticed near Gore in autumn-sown Tiritia.

Unless the disease can be controlled growers in the south might have to turn to more resistant types, Dr Smith said.

However, he noted that varieties with the most resistance often showed the least permanence, in that their resistance could break down.

The variety Kopara, now widely grown in New Zealand, is resistant to stripe rust, but the new varieties, Rongotea and Oroua, are moderately susceptible. Dr Smith said, however, those varieties in the latter category should have a reasonable level of tolerance except in a very wet season.